

Exhibit 1

1 IN THE UNITED STATES DISTRICT COURT
2 FOR THE EASTERN DISTRICT OF NEW JERSEY

3 - - -
4

5 IN RE: JOHNSON & :
6 JOHNSON TALCUM POWDER :
7 PRODUCTS MARKETING, :
8 SALES PRACTICES, AND : NO. 16-2738
9 PRODUCTS LIABILITY : (FLW) (LHG)
10 LITIGATION :
11 :
12

13 THIS DOCUMENT RELATES :
14 TO ALL CASES :
15
16 - - -
17
18

19 March 18, 2019
20
21 - - -
22
23

24 Videotaped deposition of
MARY POULTON, Ph.D., taken pursuant to
notice, was held at Skadden Arps, Four
Times square, New York, New York,
beginning at 9:06 a.m., on the above
date, before Michelle L. Gray, a
Registered Professional Reporter,
Certified Shorthand Reporter, Certified
Realtime Reporter, and Notary Public.

- - -

20 GOLKOW LITIGATION SERVICES
21 877.370.3377 ph| 917.591.5672
22 deps@golkow.com
23
24

Page 2		Page 4	
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7	Hopkins-28 Demonstrative
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2	DEPOSITION SUPPORT INDEX
3	- - -
4	
5	Direction to Witness Not to Answer
6	PAGE LINE
7	None.
8	Request for Production of Documents
9	PAGE LINE
10	16 17
11	Stipulations
12	PAGE LINE
13	None.
14	Questions Marked
15	PAGE LINE
16	None.
17	
18	
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21	
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23	
24	

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1	- - -
2	THE VIDEOGRAPHER: We are
3	now on the record. My name is
4	Henry Marte. I am a videographer
5	with Golkow Litigation Services.
6	Today's date is March 18,
7	2019. And the time is 9:06 a.m.
8	This videotaped deposition
9	is being held at Four Times
10	Square, New York, New York, in the
11	matter of Talcum Powder
12	Litigation.
13	The deponent today is Dr.
14	Mary Poulton.
15	All appearances are noted on
16	the stenographic record.
17	Will the court reporter
18	please administer the oath to the
19	witness.
20	- - -
21	... MARY POULTON, Ph.D.,
22	having been first duly sworn, was
23	examined and testified as follows:
24	- - -

Page 13

1	EXAMINATION
2	- - -
3	BY MS. O'DELL:
4	Q. Good morning, Dr. Poulton.
5	A. Good morning.
6	Q. My name is Leigh O'Dell. I
7	represent the plaintiffs in the
8	multi-district litigation. Would you
9	please state your full name for the
10	record?
11	A. Mary M. Poulton.
12	Q. What's your current address?
13	A. 15521 North Howe Road, Mead,
14	Washington.
15	Q. And what's your current
16	employment?
17	A. University of Arizona,
18	co-director for the Lowell Institute For
19	Mineral Resources.
20	Q. Okay. University of Arizona
21	is not located in Mead, Oregon.
22	A. No, it -- Washington.
23	Q. Washington, excuse me.
24	A. No, it's -- I go down about

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1 a week a month and then work remotely the
 2 rest of the time. It's a part-time
 3 position. I retired from the university
 4 in May 2017.
 5 Q. Okay. Are you -- other than
 6 your part-time work with the University
 7 of Arizona and your work in this case, do
 8 you have any other employment?
 9 A. Yes. I am a contractor to
 10 NIOSH through a company called AECOM.
 11 And I am also a co-founder and help run
 12 three start-up companies for my research
 13 and do consulting.
 14 Q. Okay. You mentioned a
 15 company called AECOM?
 16 A. Yes.
 17 Q. Is that -- is that an
 18 acronym?
 19 A. Yes. A-E-C-O-M.
 20 Q. Let me ask you to take a
 21 look at what I've marked as Exhibit
 22 Number 1 which is the notice of
 23 deposition for your deposition here
 24 today. Have you seen this before?

Page 15

1 A. Yes.
 2 Q. And what documents have you
 3 brought with you in response to the
 4 notice?
 5 (Document marked for
 6 identification as Exhibit
 7 Poulton-1.)
 8 THE WITNESS: I have my
 9 report and my CV in this binder.
 10 BY MS. O'DELL:
 11 Q. Okay. May I see your
 12 binder?
 13 A. Yes.
 14 Q. Thank you. Have you brought
 15 anything else with you?
 16 A. This is what -- this is what
 17 I have. I don't know what else might be
 18 in binders here.
 19 MR. CHACHKES: We produced
 20 something to you, I believe,
 21 yesterday in response to this
 22 subpoena. So there's nothing
 23 unique being brought to the
 24 deposition.

Page 16

1 MS. O'DELL: Okay. I'm
 2 going to ask questions about what
 3 was produced yesterday --
 4 MR. CHACHKES: Okay.
 5 MS. O'DELL: -- at 8:30 last
 6 night.
 7 BY MS. O'DELL:
 8 Q. And I also want to ask, have
 9 you brought with you today any invoices?
 10 A. No invoices today.
 11 Q. Have you submitted any
 12 invoices in relation to your work on this
 13 case?
 14 A. I have.
 15 Q. And how many?
 16 A. Two, December and January.
 17 MS. O'DELL: And I would
 18 like to request those. And Alex,
 19 if you could get those to us
 20 today, because we'd like to --
 21 MR. FROST: They were
 22 produced per a notice -- were a
 23 response to the notice on
 24 Saturday.

Page 17

1 MS. O'DELL: I got an
 2 objection to the notice. But I
 3 didn't get any documents. That's
 4 all I got.
 5 MR. FROST: Okay. It should
 6 have been attached. We'll -- we
 7 can rectify it during a -- it
 8 should have been attached to the
 9 e-mail. It's two invoices and the
 10 retention letter that were served
 11 with a response.
 12 MS. O'DELL: Okay.
 13 MR. FROST: We can sort that
 14 out during a break, if that's all
 15 right. If you don't have it,
 16 we'll get someone here to print it
 17 and get it to you soon after.
 18 MS. O'DELL: That would be
 19 fine.
 20 BY MS. O'DELL:
 21 Q. Dr. Poulton, is the CV in
 22 your binder different from the CV that
 23 you produced with your report?
 24 A. In this binder?

<p style="text-align: right;">Page 18</p> <p>1 Q. Yes.</p> <p>2 A. Let me look and see.</p> <p>3 Q. Just for ease, I'm going to</p> <p>4 hand you what I'm marking Exhibit 3,</p> <p>5 which is --</p> <p>6 MR. CHACHKES: Exhibit 2.</p> <p>7 Exhibit 2?</p> <p>8 MS. O'DELL: Yes. Thank</p> <p>9 you.</p> <p>10 (Document marked for</p> <p>11 identification as Exhibit</p> <p>12 Poulton-2.)</p> <p>13 BY MS. O'DELL:</p> <p>14 Q. Exhibit 2, which is a copy</p> <p>15 of the report that we received -- your</p> <p>16 report that we received from defendants.</p> <p>17 It had a CV enclosed in the report.</p> <p>18 A. Okay.</p> <p>19 Q. And I'm just trying to ask,</p> <p>20 simply, have there been any changes to</p> <p>21 your CV since your report was served in</p> <p>22 February?</p> <p>23 A. No.</p> <p>24 Q. Dr. Poulton, what were you</p>	<p style="text-align: right;">Page 20</p> <p>1 Q. Were you provided any other</p> <p>2 documents produced in the litigation</p> <p>3 other than those cited in Dr. Cook and</p> <p>4 Dr. Krekeler's reports?</p> <p>5 A. I received their</p> <p>6 depositions. I can look at the list of</p> <p>7 what I have here.</p> <p>8 I requested documents as I</p> <p>9 was reviewing Dr. Cook and Krekeler's</p> <p>10 reports.</p> <p>11 Q. What materials did you</p> <p>12 request?</p> <p>13 A. I requested information on</p> <p>14 geologic models, mine plans, drilling</p> <p>15 results. Clarification on sample</p> <p>16 numbers, I believe.</p> <p>17 Q. Were you provided any</p> <p>18 documents other than the documents that</p> <p>19 were actually cited in Dr. Cook and</p> <p>20 Dr. Krekeler's reports?</p> <p>21 A. Documents that were in their</p> <p>22 reports, documents I requested.</p> <p>23 Q. I'm trying to discern the</p> <p>24 difference in the group of documents</p>
<p style="text-align: right;">Page 19</p> <p>1 asked to do in this case?</p> <p>2 A. I was asked to review the</p> <p>3 expert reports by Drs. Cook and Krekeler</p> <p>4 and render an expert opinion on mining</p> <p>5 and beneficiation as it related to talc</p> <p>6 mining for cosmetic products for Johnson</p> <p>7 & Johnson.</p> <p>8 Q. When were you contacted by</p> <p>9 Johnson & Johnson counsel?</p> <p>10 A. I believe in December 2018.</p> <p>11 Q. Who contacted you?</p> <p>12 A. I believe it was Alex</p> <p>13 Chachkes and Jack Frost.</p> <p>14 Q. I'm glad to know somebody</p> <p>15 else has difficulty pronouncing Alex's</p> <p>16 name.</p> <p>17 MR. CHACHKES: You wouldn't</p> <p>18 be alone.</p> <p>19 BY MS. O'DELL:</p> <p>20 Q. What materials were you</p> <p>21 provided by Johnson & Johnson counsel?</p> <p>22 A. The expert reports from</p> <p>23 Drs. Cook and Krekeler, and the documents</p> <p>24 they cited.</p>	<p style="text-align: right;">Page 21</p> <p>1 cited in Dr. Cook and Dr. Krekeler's</p> <p>2 reports, and documents that you were</p> <p>3 describing as ones you requested. I'm</p> <p>4 trying to determine if that's a different</p> <p>5 group of documents. And if so, I want to</p> <p>6 know what you received that was not cited</p> <p>7 in Dr. Cook or Dr. Krekeler's reports.</p> <p>8 A. Right. So I had asked for</p> <p>9 some documents.</p> <p>10 Q. Did you receive additional</p> <p>11 documents?</p> <p>12 A. Yes, I did.</p> <p>13 Q. How -- how many?</p> <p>14 A. I don't remember offhand how</p> <p>15 many it was.</p> <p>16 Q. Can you give me an</p> <p>17 estimation?</p> <p>18 A. I would estimate somewhere</p> <p>19 between six and a dozen perhaps.</p> <p>20 Q. Were you provided access to</p> <p>21 a database of documents where you could</p> <p>22 perform your own searches?</p> <p>23 A. No.</p> <p>24 Q. Can you identify the</p>

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1 specific six to 12 documents that were
 2 provided to you at your request?
 3 A. I would have to go through
 4 my report and try and tease those out.
 5 Q. If, as you go through -- as
 6 you go through -- strike that and start
 7 again.
 8 In walking through your
 9 report, is it your belief that you could
 10 identify those documents based on the
 11 references in your report?
 12 A. Not easily.
 13 Q. Could you do that?
 14 A. Could I do it?
 15 Q. Yes.
 16 A. Yes, I could. It would --
 17 it would take some time.
 18 Q. Hold that thought. We may
 19 do that.
 20 So let me ask this question.
 21 You were -- you were provided Dr. Cook
 22 and Dr. Krekeler's reports.
 23 What were you asked to do in
 24 relation to those two documents?

Page 23

1 A. To -- to their expert
 2 reports? I was asked to review them, see
 3 if I agreed with what they did, what they
 4 found, and then if not, why. And what
 5 information were they missing, what
 6 analyses did I disagree with.
 7 So, basically, looking at
 8 mining and beneficiation practices and --
 9 and those specific parts of their
 10 reports.
 11 Q. In essence, you were asked
 12 to critique their expert reports, true?
 13 A. Yes.
 14 Q. And what methodology did you
 15 use in order to perform that critique?
 16 A. I started with the
 17 assumption that they were correct in
 18 their findings, and then corroborated
 19 their statements with what I saw in
 20 documents. And if they said information
 21 was missing, then I asked for that
 22 information or looked for it within the
 23 documents they had.
 24 And then basically

Page 24

1 constructed the areas where I felt that
 2 they were incorrect.
 3 Q. Is the methodology that you
 4 employed in critiquing Dr. Cook and
 5 Dr. Krekeler's reports methodology that's
 6 been published in the scientific
 7 literature?
 8 A. In terms of forming a
 9 hypothesis and testing it, yes.
 10 Q. And can you name a reference
 11 that would support that type of analysis?
 12 A. I believe nearly any
 13 textbook on research methods would cite
 14 how to form a hypothesis and -- and test
 15 it.
 16 Q. What -- what was your
 17 hypothesis in this particular -- in the
 18 task that you were asked to perform?
 19 A. So my hypothesis was that
 20 the conclusions reached by Drs. Cook and
 21 Krekeler were correct.
 22 Q. And in terms of the process
 23 that you undertook, could that process be
 24 replicated by someone else?

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1 A. Yes.
 2 Q. How?
 3 A. They -- if they have a
 4 background in mining processes and -- and
 5 beneficiation and geology, they could
 6 look at the body of knowledge about how
 7 you conduct mining, how you make mine
 8 plans, how you process ore, and they
 9 could compare that to the conclusions
 10 that Drs. Cook and Krekeler reached from
 11 the same documents that I looked at.
 12 Q. In regard to your -- your
 13 background, is it fair to say that your
 14 focus has been on mine safety and -- and
 15 sort of the mine safety focus of
 16 geological engineering?
 17 A. In my current stage of my
 18 career, that's true. I've had other
 19 focus areas throughout the past 30-plus
 20 years.
 21 Q. You are not an exploration
 22 geologist, true?
 23 A. I've done quite a bit of
 24 work in exploration geology, but I am an

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1 engineer, not a geologist by degree.
 2 Q. You are not a certified
 3 professional engineer, true?
 4 A. I have my EIT.
 5 Q. And what is an EIT?
 6 A. An EIT is the initial step
 7 for professional certification.
 8 Q. So my question is, you are
 9 not a certified professional engineer,
 10 true?
 11 A. That's correct.
 12 Q. You are not a certified
 13 professional geologist, true?
 14 A. True.
 15 Q. Turning your attention
 16 toward what I've marked as Exhibit 2,
 17 your expert report. And about, I would
 18 say, half the way into that document is
 19 exhibit A which is a copy of your CV.
 20 As I understand our
 21 discussion a few minutes ago, that's an
 22 up-to-date CV?
 23 A. It has not changed since I
 24 submitted it.

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1 Q. Okay. And you have not
 2 authored a peer-reviewed publication on
 3 phyllosilicates, true?
 4 A. True.
 5 Q. You have not authored a
 6 peer-reviewed publication regarding talc,
 7 true?
 8 A. Let me look at my list.
 9 I -- I covered talc in a software program
 10 called Minerals Where and Why. And I
 11 just need to see if it's on the
 12 peer-reviewed list or somewhere else.
 13 So Publication 28 referee
 14 book chapters could have included talc.
 15 I don't remember.
 16 Q. My question related to
 17 peer-reviewed publications and I took
 18 that in your CV, referee journals to mean
 19 peer-reviewed publications.
 20 Is that fair?
 21 A. That's fair. Referee book
 22 chapters would also be peer reviewed.
 23 Q. And you have not authored
 24 a -- a peer-reviewed publication

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1 regarding talc with a specific focus of
 2 talc?
 3 A. That's correct.
 4 Q. And you have not authored a
 5 peer-reviewed publication regarding the
 6 geology of Vermont, correct?
 7 A. Correct.
 8 Q. You have not authored a
 9 peer-reviewed publication regarding the
 10 geology of Italy, correct?
 11 A. Correct.
 12 Q. And similarly, you have not
 13 authored a peer-reviewed publication
 14 regarding the geology of talc deposits in
 15 China, correct?
 16 A. Correct.
 17 Q. Have you ever visited a talc
 18 mine?
 19 A. Yes.
 20 Q. Where?
 21 A. In California.
 22 Q. And what mine?
 23 A. I don't remember. It was in
 24 the 1980s.

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1 Q. What area?
 2 A. It -- that one would have
 3 been in Southern California, Death Valley
 4 kind of area.
 5 Q. That mine is not used to
 6 source cosmetic talc, true?
 7 A. I believe that's true.
 8 Q. It is -- it contains high
 9 levels of asbestos, true?
 10 A. What?
 11 Q. The mine that you visited in
 12 Death Valley?
 13 A. I don't know that.
 14 Q. Is -- is that mine -- just
 15 to make sure I'm thinking about the same
 16 one you're thinking of -- and you don't
 17 recall the name of the mine?
 18 A. I -- I don't.
 19 Q. Who was the owner?
 20 A. I don't know.
 21 Q. What was the purpose of your
 22 visit?
 23 A. It was a class field trip.
 24 Q. You have not visited any of

<p style="text-align: right;">Page 30</p> <p>1 the talc mines in Vermont, correct?</p> <p>2 A. Correct.</p> <p>3 Q. And that would be true also</p> <p>4 of any talc mines in Italy or China?</p> <p>5 A. Correct.</p> <p>6 Q. Have you done any research,</p> <p>7 published or nonpublished, regarding</p> <p>8 asbestos that's not related to the</p> <p>9 litigation?</p> <p>10 A. Could you repeat that</p> <p>11 question for me?</p> <p>12 Q. Sure. Have you done any</p> <p>13 research -- let me step back and say it</p> <p>14 this way. It will be easier, sorry.</p> <p>15 Have you -- have you</p> <p>16 authored any peer-reviewed publications</p> <p>17 regarding asbestos?</p> <p>18 A. No, I have not published</p> <p>19 peer-reviewed papers on asbestos.</p> <p>20 Q. Have you done any research</p> <p>21 specifically regarding asbestos other</p> <p>22 than what you've done in this litigation?</p> <p>23 A. We have had some projects in</p> <p>24 our department regarding asbestos</p>	<p style="text-align: right;">Page 32</p> <p>1 of artificial intelligence. They're the</p> <p>2 basis of photo recognition on your smart</p> <p>3 phones and Alexa and Siri and all of</p> <p>4 those technologies that are AI now.</p> <p>5 Q. All the technologies that</p> <p>6 are invading our life --</p> <p>7 A. Exactly.</p> <p>8 Q. -- and listening --</p> <p>9 A. Yes.</p> <p>10 Q. -- at various times.</p> <p>11 Let me switch gears. You</p> <p>12 are not a physician?</p> <p>13 A. I am not a physician.</p> <p>14 Q. You're not an expert on the</p> <p>15 health effects of talcum powder, true?</p> <p>16 A. Correct.</p> <p>17 Q. You're not an expert on</p> <p>18 health effects of asbestos, correct?</p> <p>19 A. Correct.</p> <p>20 Q. You're not an expert on the</p> <p>21 health effects of heavy metals?</p> <p>22 A. Correct.</p> <p>23 Q. You are not an</p> <p>24 epidemiologist?</p>
<p style="text-align: right;">Page 31</p> <p>1 associated with metal ores. I wasn't the</p> <p>2 lead person on it. I was peripheral to</p> <p>3 those studies.</p> <p>4 Q. It was not a focus of your</p> <p>5 particular research?</p> <p>6 A. It was not my focus.</p> <p>7 Q. Is it fair to say that most</p> <p>8 of your work in recent years has focused</p> <p>9 on water preservation and health issues</p> <p>10 as it relates to geology?</p> <p>11 A. In recent years that has</p> <p>12 been one of my emphasis areas.</p> <p>13 Q. I notice on your CV there's</p> <p>14 a company that you're involved with</p> <p>15 called NOAH?</p> <p>16 A. NOAH.</p> <p>17 Q. What is NOAH?</p> <p>18 A. NOAH stands for neural</p> <p>19 optimization applied hydrology. We use</p> <p>20 artificial neural networks coupled with</p> <p>21 non-linear optimization to manage water</p> <p>22 resources.</p> <p>23 Q. What is neural optimization?</p> <p>24 A. Neural networks are a form</p>	<p style="text-align: right;">Page 33</p> <p>1 A. Correct.</p> <p>2 Q. You're not a toxicologist?</p> <p>3 A. Correct.</p> <p>4 Q. You're not an industrial</p> <p>5 hygienist?</p> <p>6 A. Correct.</p> <p>7 Q. Would it be fair to say that</p> <p>8 you will defer to medical experts,</p> <p>9 whether the genital use of talc can cause</p> <p>10 cancer, true?</p> <p>11 A. Correct.</p> <p>12 Q. In regard to asbestos you</p> <p>13 are not an expert in the identification</p> <p>14 of asbestos in talc ore true?</p> <p>15 A. Could you clarify what you</p> <p>16 mean by identification?</p> <p>17 Q. Have you examined cosmetic</p> <p>18 talc for the presence of asbestos using</p> <p>19 XRD?</p> <p>20 A. No.</p> <p>21 Q. Have you examined cosmetic</p> <p>22 talc for the presence of asbestos using</p> <p>23 polarized light microscopy?</p> <p>24 A. No.</p>

Page 34

1 Q. Have you examined cosmetic
2 talc for the presence of asbestos using
3 TEM?
4 A. No.
5 Q. Have you ever tested
6 cosmetic talc in any way?
7 A. No.
8 Q. Do you have any expertise in
9 transmission electron microscopy?
10 A. No.
11 Q. Do you have any expertise in
12 using polarized light microscopy for
13 purposes of identifying contaminants in
14 an ore?
15 A. Repeat the question for me.
16 I kind of lost my train of thought.
17 Q. Do you use -- let me just
18 ask a different question.
19 A. Okay.
20 Q. Maybe that will address the
21 issue.
22 Do you use polarized light
23 microscopy as a routine part of your work
24 as a geological engineer?

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1 A. No.
2 Q. Do you plan to offer any
3 opinions in this case regarding the
4 appropriate technique for the use of
5 examining cosmetic talc for the presence
6 of asbestos?
7 A. Maybe repeat the question
8 for me again.
9 Q. Do you have any opinions
10 that you plan to provide in this case
11 that relate in any way to the appropriate
12 technique for use in analyzing cosmetic
13 talc for the presence of asbestos?
14 A. Beyond the techniques that
15 are identified in things like ISO
16 standards. I mean, just basically being
17 able to say that those are the identified
18 techniques.
19 Q. But you have no expertise in
20 the techniques used to examine talc?
21 A. In using those techniques,
22 correct.
23 Q. Okay. I didn't ask you this
24 before, Dr. Poulton. But have you had

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1 your deposition taken before?
2 A. No.
3 Q. One of the things that will
4 help the court reporter and just all of
5 us, if you'll wait for me to finish --
6 A. I'm sorry.
7 Q. -- before you answer. And
8 I'll endeavor to do the same with you.
9 And I'm from the south, as you probably
10 recognize, and sometimes I talk slow. So
11 if you'll give me a minute to get my
12 question out, that would be great.
13 So have you ever been hired
14 as a consultant or otherwise employed by
15 a mine company to develop a drill core
16 program for purposes of evaluating an ore
17 deposit?
18 A. Could you repeat that.
19 Q. Outside the context of your
20 work as an academic, have you been hired
21 as a consultant or an employee of a
22 mining company to design a drill core
23 program?
24 A. Pittsburgh and Midway Coal

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1 Mining Company.
2 Q. And when was that?
3 A. 1984.
4 Q. And what was your role with
5 Pittsburgh Coal and -- I'm sorry. What's
6 the name of the company again?
7 A. Pittsburgh and Midway.
8 Q. Okay.
9 A. So I was working on
10 long-range mine planning, 25-year mine
11 plan. And we had to lay out the drilling
12 program, drill the holes, log the core,
13 assay the core, create the geologic
14 models, create the reserves, do the maps.
15 Q. That was in 1984?
16 A. Correct.
17 Q. What was your position with
18 the company?
19 A. Mining engineer.
20 Q. How long did you have that
21 position?
22 A. That was roughly May to
23 August.
24 Q. And that was a summer job --

<p style="text-align: right;">Page 38</p> <p>1 A. Yes.</p> <p>2 Q. -- fair?</p> <p>3 And that was a summer job</p> <p>4 prior to your getting your master's</p> <p>5 degree or your Ph.D.?</p> <p>6 A. My bachelor's degree.</p> <p>7 Q. Yeah. So this was a summer</p> <p>8 job while you were getting your</p> <p>9 bachelor's degree?</p> <p>10 A. Yes.</p> <p>11 Q. And that would be the last</p> <p>12 time that you had a job that involved</p> <p>13 drill core, drilling program, logging</p> <p>14 cores, et cetera?</p> <p>15 A. So we did those kind of</p> <p>16 activities within the context of our</p> <p>17 curriculum with graduate students.</p> <p>18 Q. I'm asking in regard to</p> <p>19 consulting in a situation outside of</p> <p>20 academic.</p> <p>21 A. No.</p> <p>22 Q. To make sure the question is</p> <p>23 clear. The last time that you were hired</p> <p>24 in any capacity to develop a drill</p>	<p style="text-align: right;">Page 40</p> <p>1 Lowell Institute For Mineral Resources at</p> <p>2 the University of Arizona.</p> <p>3 A. So the Lowell Institute is a</p> <p>4 large interdisciplinary research</p> <p>5 institute within the University of</p> <p>6 Arizona. We bring together faculty from</p> <p>7 many different disciplines to work on a</p> <p>8 broad range of mineral resources, issues,</p> <p>9 from grass roots, exploration and</p> <p>10 fundamental geosciences through mining,</p> <p>11 health and safety, reclamation,</p> <p>12 geotechnical engineering, law.</p> <p>13 And so we do research. We</p> <p>14 do outreach. We do professional and</p> <p>15 continuing education. We do</p> <p>16 interdisciplinary education. We do</p> <p>17 technology transfer. Basically,</p> <p>18 everything from the beginning of a</p> <p>19 mineral resources project through</p> <p>20 ultimate closure and community relations,</p> <p>21 along with K-12 and public outreach.</p> <p>22 Q. Define geologic engineering.</p> <p>23 A. So geological engineering is</p> <p>24 an accredited engineering degree. It</p>
<p style="text-align: right;">Page 39</p> <p>1 program, participate in a core drill</p> <p>2 program or log cores was in 1984 when you</p> <p>3 were a student?</p> <p>4 A. Outside of academia, yes.</p> <p>5 Q. Yes.</p> <p>6 A. Yes.</p> <p>7 Q. Have you been hired by a</p> <p>8 mining company to perform minerologic</p> <p>9 exploration for purposes of economic</p> <p>10 exploitation?</p> <p>11 A. Outside of academia?</p> <p>12 Q. Yes.</p> <p>13 A. I don't believe so.</p> <p>14 Q. Have you ever designed a</p> <p>15 mine plan for a talc mine?</p> <p>16 A. No.</p> <p>17 Q. Outside of academia, would</p> <p>18 it be fair to say that you have not</p> <p>19 designed a mine plan for any type of</p> <p>20 mine?</p> <p>21 A. Outside of academia?</p> <p>22 Q. Yes.</p> <p>23 A. Correct.</p> <p>24 Q. Describe your work with the</p>	<p style="text-align: right;">Page 41</p> <p>1 combines geologic knowledge with</p> <p>2 engineering. And depending on the</p> <p>3 university, it's usually associated with</p> <p>4 mining engineering or in some cases civil</p> <p>5 engineering, or in some cases geology.</p> <p>6 At the University of</p> <p>7 Arizona, it was associated with mining</p> <p>8 engineering. So the geological</p> <p>9 engineering was essentially mining</p> <p>10 engineering with extra geology and some</p> <p>11 extra civil engineering.</p> <p>12 Q. And you were department head</p> <p>13 of mining and geological engineering at</p> <p>14 the University of Arizona for some period</p> <p>15 of time?</p> <p>16 A. Yes.</p> <p>17 Q. And that program was</p> <p>18 accredited?</p> <p>19 A. Yes.</p> <p>20 Q. And is the accreditation</p> <p>21 board for engineering and technology</p> <p>22 the -- the organization that provides</p> <p>23 accreditation for the University of</p> <p>24 Arizona's department?</p>

<p style="text-align: right;">Page 42</p> <p>1 A. ABET. Yes.</p> <p>2 Q. ABET.</p> <p>3 Did ABET audit your</p> <p>4 department in 2004-2005?</p> <p>5 A. I would have to think about</p> <p>6 what years, let's see. 2014 -- no, I'm</p> <p>7 sorry. 2016. 2010.</p> <p>8 Probably 2004 or</p> <p>9 thereabouts. I'd have to -- to search my</p> <p>10 memory as to exact dates.</p> <p>11 Q. And ABET does a thorough</p> <p>12 review of departments when investigating</p> <p>13 them for purposes of accreditation, true?</p> <p>14 A. Thorough investigation, yes.</p> <p>15 Q. And -- and you were head of</p> <p>16 the department in 2004-2005?</p> <p>17 A. Yes.</p> <p>18 Q. Did ABET find that you had</p> <p>19 approved students for graduation that had</p> <p>20 not completed the appropriate credits?</p> <p>21 A. There was some controversy</p> <p>22 over how credits were counted for some</p> <p>23 particular courses that was cleared up.</p> <p>24 Q. And, in fact, ABET</p>	<p style="text-align: right;">Page 44</p> <p>1 A. I don't remember that</p> <p>2 happening.</p> <p>3 Q. After 2004, you no longer</p> <p>4 advised geological engineering students,</p> <p>5 true?</p> <p>6 A. There were other situations</p> <p>7 related to personnel in the department</p> <p>8 for geological engineering. So it's --</p> <p>9 it's not a true statement that I was not</p> <p>10 allowed to advise students. There</p> <p>11 were -- there were some personnel issues</p> <p>12 surrounding geological engineering.</p> <p>13 Q. Following 2005, you no</p> <p>14 longer advised geological students, true?</p> <p>15 A. I did not.</p> <p>16 Q. Let me show you what I'm</p> <p>17 marking as Exhibit 4.</p> <p>18 (Document marked for</p> <p>19 identification as Exhibit</p> <p>20 Poulton-4.)</p> <p>21 BY MS. O'DELL:</p> <p>22 Q. I provided you as Exhibit 4</p> <p>23 some minutes from a faculty senate</p> <p>24 meeting in March 3, 2008.</p>
<p style="text-align: right;">Page 43</p> <p>1 threatened to not accredit the department</p> <p>2 based on your approval of students for</p> <p>3 graduation without them having completed</p> <p>4 the appropriate courses, true?</p> <p>5 A. No, not -- not -- restate</p> <p>6 the question.</p> <p>7 Q. And, in fact, ABET</p> <p>8 threatened to not accredit the department</p> <p>9 based on your approval of students for</p> <p>10 graduation without them having completed</p> <p>11 the appropriate credits, true?</p> <p>12 A. No.</p> <p>13 Q. That's not true?</p> <p>14 A. Mining engineering was --</p> <p>15 was fine. Geological engineering had</p> <p>16 some questions that needed clarification.</p> <p>17 Q. Let me show you what -- let</p> <p>18 me -- before I -- I show you this, let me</p> <p>19 just ask.</p> <p>20 Following that incident with</p> <p>21 ABET in 2004 and 2005, was the condition</p> <p>22 of your department maintaining its</p> <p>23 accreditation that you no longer advise</p> <p>24 geological engineering students, true?</p>	<p style="text-align: right;">Page 45</p> <p>1 Do you see that?</p> <p>2 A. Where are we looking? Okay.</p> <p>3 So cover page, March 3, 2008.</p> <p>4 Q. Page -- do you see those?</p> <p>5 Let me ask you to turn to</p> <p>6 page -- I think it's five of the</p> <p>7 document.</p> <p>8 A. Five is a Number 5 or?</p> <p>9 Q. No. Actually just count the</p> <p>10 pages because there are multiple</p> <p>11 documents that were attached to the</p> <p>12 minutes.</p> <p>13 So if you look at Page 5 and</p> <p>14 turn to the back of that page. You'll</p> <p>15 see a Paragraph Number 3.</p> <p>16 Do you see that?</p> <p>17 A. No, I'm not sure where you</p> <p>18 are.</p> <p>19 Q. Page 2 of the attachment, I</p> <p>20 think to this document. It's -- here you</p> <p>21 go, ma'am, I'll turn you to the right</p> <p>22 page if you'd like me to.</p> <p>23 Right there. This is Page 2</p> <p>24 of a memorandum from Dr. Ben Sternberg to</p>

<p style="text-align: right;">Page 46</p> <p>1 the members of the faculty senate dated 2 March 1st, 2008. Have you seen this 3 before? 4 A. I would have to search my 5 memory. I can tell you there was a 6 serious personnel issue with 7 Dr. Sternberg that I am not sure how much 8 I am allowed to say here. 9 Q. Okay. 10 A. But it is very germane to 11 the substance of this. 12 Q. And looking at Page 2 under 13 Heading 3, Dr. Sternberg writes, "In the 14 2004-2005 accreditation cycle, the ABET 15 visitor for geological engineering found 16 that Dr. Poulton, department head of 17 mining and geological engineering, had 18 approved students for graduation without 19 their meeting the required number of 20 engineering credits. Since this was 21 viewed as a fatal flaw, we were told that 22 we would lose accreditation. After 23 extensive negotiations, the ABET 24 committee decided that they would allow</p>	<p style="text-align: right;">Page 48</p> <p>1 MR. CHACHKES: Actually, 2 just let the witness finish the 3 answer, please. 4 BY MS. O'DELL: 5 Q. And if you would just focus 6 on my question -- 7 MR. CHACHKES: Yeah, but 8 still, even if -- let the witness 9 finish her answer, please. 10 BY MS. O'DELL: 11 Q. I'll let you certainly 12 explain your answer. But if you'll just 13 listen to my question, Dr. Poulton. 14 You no longer advised 15 geological engineering students following 16 this 2004-2005 time period, true? 17 A. That's not a true/false 18 question that I can answer. 19 Q. Is that correct? 20 A. It is correct I was not 21 advising students for that program. 22 Q. Okay. 23 A. But again, as part of a 24 personnel issue.</p>
<p style="text-align: right;">Page 47</p> <p>1 this history to pass, if and only if 2 Dr. Poulton was no longer allowed to 3 advise geological engineering students. 4 Once this problem was overcome, the final 5 ABET report provided a strong 6 recommendation for our program." 7 Did I read that correctly? 8 A. The -- you read that 9 correctly. 10 Q. And it's fair to say that 11 the -- ABET agreed to accredit Arizona's 12 geological engineering program based on 13 the decision that you would be prohibited 14 from advising students, true? 15 A. I strongly disagree with 16 this paragraph as being true. 17 Q. You no longer advised 18 geological engineering students following 19 this time period, true? 20 A. This was part of a personnel 21 action regarding Dr. Sternberg. 22 Q. True? 23 A. So -- 24 Q. Let me -- the question is --</p>	<p style="text-align: right;">Page 49</p> <p>1 Q. As a part of the faculty 2 senate meeting in -- in March of -- of 3 2008, did you submit a memorandum or 4 letter disputing Dr. Sternberg's 5 statements in this memorandum? 6 A. I don't remember. 7 Q. You do not recall doing 8 that, correct? 9 A. I -- I just don't remember. 10 (Document marked for 11 identification as Exhibit 12 Poulton-3.) 13 BY MS. O'DELL: 14 Q. Let me ask you to take a 15 look at what I'm marking as -- previously 16 marking as Exhibit 3. 17 And ask you to -- 18 MS. O'DELL: Before I ask 19 you to identify it, I would just 20 note an objection on the record. 21 This was received last night, I 22 think, at 8:30 p.m. 23 We object to the late 24 production, to the lack of</p>

<p style="text-align: right;">Page 50</p> <p>1 opportunity to review this 2 analysis prior to the deposition. 3 And so, on the basis of -- 4 of that late disclosure of the 5 supplemental report we'll move to 6 hold the deposition open until 7 we've had adequate opportunity to 8 analyze it. 9 MR. CHACHKES: Okay. 10 Obviously we disagree and -- and I 11 think you have produced many 12 things with even less notice. 13 So it's an odd objection, 14 but noted. 15 MS. O'DELL: I don't agree 16 with -- with that, but -- 17 MR. CHACHKES: Yeah, and by 18 the way, there's no supplemental 19 report. You said supplemental 20 report. This is not a 21 supplemental report. 22 MS. O'DELL: This is a 23 supplemental analysis. Well -- 24 MR. CHACHKES: It is not.</p>	<p style="text-align: right;">Page 52</p> <p>1 A. Correct. 2 Q. And when you're talking 3 about the mill, what mill are you 4 referring to? 5 A. West Windsor. 6 Q. And what's the methodology 7 that you used to perform this analysis? 8 A. I looked at the data that 9 was in their annual mine reports, their 10 mine plans. 11 Q. For what year? 12 A. It was a combination of data 13 from 1998 and 2002 reports. 14 Q. What was the purpose of 15 doing this analysis? 16 A. I wanted to just clarify in 17 my mind what the rates of production 18 were, and if I converted a continuous 19 process to a batch process, how many 20 blocks of ore were being processed in a 21 given amount of time and how did that 22 relate to how long it might take to fill 23 a silo with finished talc. 24 Q. It's fair to say that this</p>
<p style="text-align: right;">Page 51</p> <p>1 Why don't you ask the question. 2 MS. O'DELL: I'm about to 3 ask the question. 4 MR. CHACHKES: Okay. 5 BY MS. O'DELL: 6 Q. Dr. Poulton, would you 7 please describe what I've marked as 8 Exhibit 3? 9 A. It's a simple spreadsheet 10 that I put together, back-of-the-envelope 11 kinds of calculations, looking at mining 12 throughputs and potential material that's 13 being sampled from the mine through the 14 mill. 15 A lot of assumptions. I 16 pulled data from multiple mine plans to 17 get the variables. 18 But I was just basically 19 looking at rate of production and 20 throughput through the mill. 21 Q. And an analysis of this type 22 was not included in your initial report? 23 A. Correct. 24 Q. Fair?</p>	<p style="text-align: right;">Page 53</p> <p>1 calculation was based on certain 2 assumptions that you made rather than a 3 specific analysis of what occurred during 4 the operation at West Windsor? 5 A. So I took actual data, but I 6 had to make some assumptions. For 7 instance, I didn't account for stripping 8 ratio of 2 to 1, which is used. I didn't 9 account for bulking factor as the silo 10 was filled. 11 I had to convert a 12 continuous process to a batch process for 13 resonance time. 14 Q. You were not able to account 15 for certain ways the mine manager may 16 have directed personnel to fill silos 17 that are not reflected in the documents, 18 true? 19 A. These are based on reported 20 numbers. 21 Q. And based on assumptions 22 that you've made and not necessarily what 23 may have happened that was not recorded 24 in a written document, true?</p>

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1 A. Correct. Correct.
 2 Q. Were you asked to perform
 3 this analysis by counsel?
 4 A. No.
 5 Q. When did you perform this
 6 analysis?
 7 A. Two Sundays ago.
 8 Q. When was it provided to
 9 counsel?
 10 A. I believe Saturday or Sunday
 11 morning.
 12 Q. How many times did you meet
 13 with counsel in preparation for your
 14 deposition?
 15 A. In preparation just for the
 16 deposition? Probably three times in
 17 person and once by videoconference.
 18 Q. When did the in-person
 19 meetings occur?
 20 A. One in Spokane.
 21 Q. When?
 22 A. I'm trying to remember.
 23 Two -- two Thursday ago, March 7th or
 24 thereabouts, whatever that Thursday date

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1 might be. And then Friday and Sunday of
 2 this most recent week.
 3 Q. When was the
 4 videoconference?
 5 A. I don't remember without
 6 looking at a calendar.
 7 Q. Was it prior to the
 8 March 7th meeting in Spokane?
 9 A. Yes.
 10 Q. Other than the three
 11 in-person meetings that you've mentioned
 12 in preparation for your deposition and
 13 the videoconference, did you meet with
 14 counsel in person on any other occasion?
 15 A. No.
 16 Q. Prior to the March 7th
 17 meeting in Spokane, had you ever met
 18 counsel in person?
 19 A. I don't believe so.
 20 Q. And prior to that time, all
 21 of your communication had been by
 22 telephone?
 23 A. Yes. Principally telephone,
 24 some e-mail.

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1 Q. Who contacted you about
 2 serving as an expert?
 3 A. I was contacted by a
 4 colleague at the University of Arizona.
 5 Q. Who?
 6 A. Robert Downs.
 7 Q. Who is Robert Downs?
 8 A. He is a geosciences
 9 professor.
 10 Q. Who contacted Dr. Downs
 11 about seeking an expert for this
 12 litigation?
 13 A. I don't know who contacted
 14 him. He referred me to Alex and Jack.
 15 Q. When did you agree to serve
 16 as an expert?
 17 A. In December before
 18 Christmas. I don't remember the date.
 19 Q. And was that -- did you
 20 agree to become an expert at the time
 21 that you were contacted by counsel for
 22 J&J?
 23 A. There were multiple
 24 conversations before I committed.

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1 Q. Let me ask a couple of
 2 general questions.
 3 Would you agree that ore --
 4 and you've referred to ore often in your
 5 report, it is a term of art in geology of
 6 course. But for members of the jury and
 7 maybe even others reading this
 8 transcript, the definition of ore may not
 9 be clear.
 10 But can we agree that ore is
 11 a type of rock that contains minerals
 12 that can be extracted for sale?
 13 A. With the addition of
 14 extracted at a profit, extracted and
 15 processed at a profit.
 16 Q. So the ore in your mind, it
 17 needs to be profitable?
 18 A. Profitable, yes.
 19 Q. And so if you happened to be
 20 an unfortunate mining company, which can
 21 happen, where you're mining rock and
 22 you're selling it, but you're not making
 23 money, is that not ore to you?
 24 A. We would still call that

<p style="text-align: right;">Page 58</p> <p>1 ore. But for purposes of starting the 2 mine, we use an economic definition. 3 Q. Okay. Because the hope is 4 you're going to make money? 5 A. The hope is you're going to 6 make money. 7 Q. Not always true? 8 A. Not always true. 9 Q. So -- but setting aside the 10 expectation of profit, et cetera, bottom 11 line is ore is what you extract from the 12 ground for purposes of sale? 13 A. Yes. 14 Q. Would you agree that 15 oftentimes, ore can have a primary mineral 16 and then also have accessory minerals? 17 A. Yes. 18 Q. Would you agree that 19 occurrences of certain minerals based on 20 their geology can have a high degree of 21 variability in terms of the prevalence of 22 accessory minerals? 23 A. You might have to rephrase 24 that question for me.</p>	<p style="text-align: right;">Page 60</p> <p>1 they can have an ultramafic deposit 2 that's formed through the -- which would 3 be true of Vermont, fair? 4 A. True. 5 Q. And that talc deposits can 6 have variability in terms of the 7 accessory minerals that are present, 8 true? 9 A. What would you mean by 10 accessory minerals with regard to talc? 11 Q. It could be chlorite. It 12 could be serpentine. Could be asbestos 13 minerals. Could be cobalt, chromium, et 14 cetera. Would you agree that certain 15 deposits have a greater amount of those 16 accessory minerals than others? 17 A. So I think in this context 18 we would want to separate the actual talc 19 body from surrounding rock when we're 20 talking about accessory minerals. 21 Q. And is it your opinion that 22 talc body, as you just used, an ore body, 23 would be a homogenous sort of formation 24 of solely talc?</p>
<p style="text-align: right;">Page 59</p> <p>1 Q. Okay. Would you agree that 2 certain minerals can, just because of 3 their very nature, how they are formed in 4 the earth, they can have a high 5 variability of accessory minerals, true? 6 A. On what scale? 7 Q. I'm not -- I'm not limiting 8 it to a particular scale. I'm just 9 saying they can have a high variability 10 of accessory minerals. 11 A. I think I would want to 12 think of the more specific situation 13 before I answered. 14 Q. Not willing to agree to that 15 pretty simple concept? 16 A. No, it's actually not a 17 simple concept. I think I would want to 18 have a more specific example to answer. 19 Q. How about with talc? Talc 20 is a mineral that can be used in 21 industrial and cosmetic settings, true? 22 A. True. 23 Q. And talc can be formed in a 24 number of different ways. For example,</p>	<p style="text-align: right;">Page 61</p> <p>1 A. No. It would not be solely 2 the chemical formula for talc. But what 3 accessory minerals might exist with it 4 would be very specific to how that 5 particular talc deposit formed and it 6 could be peripheral to the talc body. 7 Q. And they also could vary in 8 amount across different talc deposits, 9 true? 10 A. Again, could you clarify 11 what you mean by they could vary? 12 Q. What's unclear about that? 13 A. Well, I'm just -- I'm just 14 trying to get in my mind, are we talking 15 only about ultramafic bodies, what 16 accessory minerals are we talking about? 17 I just -- I just want to be clear in my 18 mind. 19 Q. Well, take Vermont for 20 example, and ultra -- ultramafic talc 21 deposits, they can vary in terms of the 22 prevalence of certain accessory minerals, 23 true? 24 A. The -- the talc body can</p>

<p style="text-align: right;">Page 62</p> <p>1 certainly vary in terms of grade of talc, 2 brightness, other variables, but when we 3 are talking about accessory minerals, we 4 would want to clarify what's part of the 5 talc body versus what are the 6 peripheral -- peripheral rocks. 7 Q. How do you define accessory 8 minerals? 9 A. Accessory minerals, it would 10 depend on the type of ore body we are 11 talking about and whether we are talking 12 about the general geology of the ore 13 deposit. 14 Are we talking about what 15 might occur microscopically with a 16 particular mineral of interest? 17 So it just depends as -- as 18 to what specifically we are talking 19 about. 20 Q. Is there a general 21 definition of accessory mineral that you 22 think is appropriate to use? 23 A. I tend to think more of ore 24 versus gang as opposed to specific</p>	<p style="text-align: right;">Page 64</p> <p>1 material? 2 A. I do. 3 Q. And in terms of the amount 4 of a material, in order for it to rise to 5 the level of an accessory mineral, 6 what -- what would that be in your mind? 7 A. I don't know if I could 8 define a level that would make something 9 accessory. If it could be separated and 10 is useful and could be sold, it would be 11 a byproduct or a co-product. To a mining 12 person or a metal person, or a geologist, 13 that might still be considered an 14 accessory mineral. If it is not of 15 sufficient quality or use to be sold, 16 then it would be gang or waste material. 17 Q. You are not a geologist, 18 true? 19 A. I am not a geologist. 20 Q. Do you agree that selective 21 mining involves carefully outlining the 22 boundaries of a particular ore body 23 first? 24 A. Outlining the?</p>
<p style="text-align: right;">Page 63</p> <p>1 accessory minerals, coming from a mining 2 background. So geologists might talk 3 about specific accessory minerals in a 4 different context than -- than I might. 5 Q. Well, since we're talking 6 about -- let me strike that and say this. 7 How do you understand 8 geologists to define accessory minerals? 9 A. I'm not sure I could answer 10 generically how a geologist might define 11 that. 12 Q. What is your definition 13 of -- general definition of accessory 14 minerals, as it's used in the geologic 15 literature? 16 A. So if I'm talking 17 specifically about the commodity that's 18 being extracted, the accessory minerals 19 could be economic and separable, or they 20 can be gang material that is not 21 economic. It really depends on the 22 situation. 23 Q. Do you use the term "gang" 24 as -- interchangeably with waste</p>	<p style="text-align: right;">Page 65</p> <p>1 Q. The particular boundaries of 2 an ore body. 3 A. Yes. 4 Q. That's the first step -- 5 A. First step. 6 Q. -- in selective mining. 7 The second step is to ensure 8 that the ore is segregated from the waste 9 material that also might be located 10 within that particular deposit, true? 11 A. To the extent you can, yes. 12 Q. It's not always possible. 13 True? 14 A. It depends on the particular 15 situation. So are we talking 16 specifically about -- 17 Q. I asked you just a general 18 question -- 19 MR. CHACHKES: If you would 20 let the witness finish, please. 21 MS. O'DELL: I thought she 22 was finished. 23 MR. CHACHKES: She was not. 24 Go ahead.</p>

<p style="text-align: right;">Page 66</p> <p>1 BY MS. O'DELL: 2 Q. I apologize. I thought you 3 were finished. 4 A. Again, I've -- I've lost my 5 train of thought. 6 So we were talking about 7 selective mining and whether you can -- 8 how -- how narrowly you can define the 9 boundaries. 10 Q. No. We actually had moved 11 on. 12 A. Okay. 13 Q. We had talked about the 14 second step in selective mining is 15 essentially extracting material and then 16 delineating between ore versus waste 17 material. True? 18 A. I apologize. 19 Q. I'll restate it. If it's -- 20 I'm going to do my best to ask you clear 21 questions. And so you can respond to 22 them and we can have an understanding 23 that you understood my question. But if 24 you don't, just ask me to restate it.</p>	<p style="text-align: right;">Page 68</p> <p>1 extracting ore, true? 2 A. Well, you can tell the 3 difference between ore and waste. So I'm 4 not quite sure, when you say contours, 5 what you mean. 6 Q. Is it always true that you 7 can tell the difference between ore and 8 waste within a mine setting? 9 A. And are we talking generic 10 mines or specific mines? 11 Q. Generic. 12 A. I think we would want to 13 talk specific mines to answer that 14 question. 15 Q. I'm asking you a general 16 question. 17 A. I don't think there's a 18 specific answer to that general question. 19 Q. You said in response to my 20 question that -- excuse me, let me go 21 back up to your answer. 22 You said you can tell the 23 difference between ore and waste. That 24 was your statement. Is that always true?</p>
<p style="text-align: right;">Page 67</p> <p>1 I'm happy to do that. 2 A. Okay. 3 Q. The second step of selective 4 mining involves segregating ore and waste 5 during the extraction process, true? 6 A. Yes. You are basically 7 mining the ore and you don't want to 8 spend money moving any more waste than 9 you have to. 10 Q. Right. And sometimes, 11 despite best efforts, it's not always 12 possible to precisely segregate the ore 13 from other waste material that might be 14 included in that particular deposit, 15 fair? 16 A. So you can basically move 17 your -- your boundaries in from your 18 waste margins to prevent that from 19 happening. 20 Q. But in the delineation of 21 the particular ore body, if those 22 assumptions about the contours of the ore 23 body are not accurate, it's very possible 24 to extract waste believing that you're</p>	<p style="text-align: right;">Page 69</p> <p>1 A. Always true for every kind 2 of mineral deposit? 3 Q. Yes. 4 A. Again, I don't think we can 5 have a specific answer to a generic 6 question like that. 7 Q. It's not always true that 8 you can tell the difference between waste 9 and ore in certain mining contexts, true? 10 A. I think we would want to 11 talk about specifics. 12 Q. I'm asking you a general 13 question. If you can't answer that 14 question, then just say I can't answer 15 it. 16 A. Well, I -- I think it can be 17 answered with specifics, but I don't 18 think that it's -- 19 Q. That's -- that's not a 20 general principle that you can agree to? 21 A. Well, you certainly 22 delineate ore and waste. 23 I just, I guess I'm still 24 confused on what -- what you're thinking</p>

<p style="text-align: right;">Page 70</p> <p>1 of in terms of can you discriminate 2 between them. 3 Q. In an open pit setting where 4 you have -- when you're using a drill and 5 blasting situation, you'd agree with me 6 that it is not always possible to discern 7 between the boundary of ore and waste, 8 true? 9 A. Again, I think we have to be 10 talking about specific situations. 11 Q. And you can't answer that 12 question in a general way? 13 A. I -- I think we have to talk 14 about specifics. 15 Q. Is the answer -- you cannot 16 answer that question? 17 A. As phrased about a generic 18 situation, I can't. 19 MR. CHACHKES: Leigh, we've 20 been going about an hour and ten 21 minutes. So wherever you think is 22 a good point for a break. 23 MS. O'DELL: I'm fine. If 24 you'd like a break, that's fine</p>	<p style="text-align: right;">Page 72</p> <p>1 with real data for companies. That 2 includes surface and underground mine 3 data, mine planning, mine design. So 4 working with the students, student 5 projects in the curriculum, we're working 6 with mining companies with real data. 7 So certainly I've been 8 involved in mine design and mine planning 9 with real data. 10 Q. In the context of a 11 classroom? 12 A. In the context of the 13 university. 14 Q. And in a classroom, true? 15 A. It doesn't necessarily have 16 to happen in a classroom. 17 Q. But in a context of work as 18 a professor, true? 19 A. Yes. 20 Q. And in terms of consulting 21 with a mining company for purposes of 22 designing an underground mine, you've 23 never done that, true? 24 A. I have not.</p>
<p style="text-align: right;">Page 71</p> <p>1 with me. 2 THE VIDEOGRAPHER: Please 3 remove your microphones. The time 4 is 10:14 a.m. We are going off 5 the record. 6 (Short break.) 7 THE VIDEOGRAPHER: Okay. We 8 are back on the record. The time 9 is 10:36 a.m. 10 BY MS. O'DELL: 11 Q. Dr. Poulton, it's fair to 12 say that you have never designed an open 13 pit mine, true? 14 A. No. 15 Q. And it's fair to say that 16 you have never directed the operation of 17 an open pit mine, true? 18 A. True. 19 Q. Okay. And you have never 20 designed an underground mine, true? 21 A. From scratch? 22 Q. Yes. 23 A. Certainly within the context 24 of the coursework that we teach, we work</p>	<p style="text-align: right;">Page 73</p> <p>1 Q. And you have never consulted 2 with, or been employed by a mining 3 company in any way for purposes of 4 directing the operation of an underground 5 mine in the real world, so to speak, 6 true? 7 A. You might have to repeat the 8 question for me. 9 Q. I'm happy to. You have 10 never been employed by a mining company 11 to direct the operation of an underground 12 mine, true? 13 A. True. 14 Q. You have never designed a 15 beneficiation process outside the context 16 of your work as a professor in an 17 academic setting, true? 18 A. True. 19 Q. Let's take that question 20 again to make sure we have it clear. 21 Outside the context of your 22 work as a professor, you have never 23 designed a beneficiation or processing 24 plant, true?</p>

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1 A. For a mining company?

2 Q. Yes.

3 A. True.

4 Q. And in relation to talc

5 specifically, you have never designed a

6 beneficiation process for talc, true?

7 A. True.

8 Q. And when we say

9 beneficiation in this context, would you

10 agree with me we're referring to the

11 processing plant that receives ore from

12 the mine, and it is taken through a

13 process to either purify it, remove

14 certain aspects of the ore, et cetera, in

15 order to get a final product?

16 A. So beneficiation includes

17 comminution, which is reduction in

18 particle size and then concentration.

19 Q. Turning to your report in

20 this case which we've marked previously

21 as Exhibit 2. And I'll ask you to turn

22 to Page 4 of your report. You cite an

23 article that was written by Miller and

24 published in 1984. It's an article by

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1 Roger Miller. Who is Roger Miller?

2 A. Roger Miller worked at the

3 Hammondsville mine. I think he might

4 have been mine manager at one point.

5 Q. And he was employee of

6 Windsor Minerals, true?

7 A. As far as I know, yes.

8 Q. And Windsor Minerals was a

9 wholly owned subsidiary of Johnson &

10 Johnson, true?

11 A. At one point, yes.

12 Q. Mr. Miller wrote a

13 presentation that was given at a meeting

14 of the society of mining engineers.

15 And it was -- the

16 publication relates to continuous mining

17 machines. Do you recall that?

18 A. Yes.

19 Q. And continuing mining

20 machines were utilized in underground

21 operations by Windsor Minerals, but they

22 were not used in open pit mining, true?

23 A. No.

24 Q. That's not true?

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1 A. I believe they were used in

2 open pit mining at one point.

3 Q. Which mines?

4 A. I would have to go back and

5 look at documents to be sure.

6 Q. What period of time?

7 A. Again, I'd have to look at

8 the documents to -- to be sure.

9 Q. Do you know how long?

10 A. How --

11 Q. How long they were used, if

12 they were used?

13 A. They were used? I don't

14 know without looking at the documents

15 again.

16 Q. Do you have a memory whether

17 it was a short period of time or a long

18 period of time?

19 A. What would you define as

20 short versus long?

21 Q. Less than a year, more than

22 a year?

23 A. That, I don't know.

24 Q. What mines were in Vermont

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1 were used to source Johnson & Johnson

2 talcum powder products?

3 A. I would want to refresh my

4 memory to make sure I have it exactly

5 right. Hammondsville was used. Argonaut

6 was used. My memory is that at certain

7 points perhaps Hamm was used or qualified

8 for use and perhaps Rainbow was either

9 qualified or perhaps had been used, but I

10 would want to check the record to be

11 certain that that is the right list.

12 Q. Any others?

13 A. Not that come to mind again

14 without checking through some of the

15 documents.

16 Q. What county is the

17 Hammondsville mine located in?

18 A. What county?

19 Q. Yes.

20 A. I don't know.

21 Q. What county is Argonaut

22 located in?

23 A. I don't know.

24 Q. Do you know what county the

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1 Hamm mine is located in?
 2 A. I don't know.
 3 Q. Do you know what county
 4 Ludlow is located in?
 5 A. I don't without looking at a
 6 map.
 7 Q. You don't know that in the
 8 context of your work in this case? You
 9 don't know what county those mines are
 10 located, true?
 11 A. Off the top of my head in
 12 this deposition, I don't.
 13 I would have to consult a
 14 map that was in some of the documents.
 15 Q. What mills were used by
 16 Johnson & Johnson to process cosmetic
 17 talc?
 18 A. West Windsor.
 19 Q. Any others?
 20 A. Not that I recall.
 21 Q. Ludlow, the Ludlow plant was
 22 used to process industrial talc, true?
 23 A. That is my understanding.
 24 Q. And ore from -- ore --

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1 excuse me.
 2 Ore for cosmetic talc was
 3 crushed at Ludlow prior to being
 4 transported to West Windsor for
 5 processing, true?
 6 A. I would want to confirm that
 7 in the documents. That is my
 8 recollection but I would want to confirm
 9 that.
 10 Q. As I appreciate your answer,
 11 is that's your recollection, that that
 12 was the case, fair?
 13 A. Could you repeat the
 14 question for my recollection?
 15 Q. Well, you just said it's my
 16 recollection that it was true that ore
 17 was crushed at Ludlow and then sent to
 18 West Windsor for processing. I
 19 understood you to say that that is your
 20 recollection.
 21 A. That is my recollection.
 22 Q. And then you keep saying
 23 that you need to check documents.
 24 A. Yes.

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1 Q. If you check documents and
 2 you learn that that's not the case, would
 3 you come back to me because I'm going to
 4 rely on your answer that you've just
 5 given.
 6 MR. CHACHKES: Counsel, I'm
 7 just going to object there. We
 8 are not keeping the deposition
 9 open. If you want to investigate
 10 documents, we can do it right
 11 here.
 12 MS. O'DELL: Well, she's
 13 saying I need to look at
 14 documents.
 15 BY MS. O'DELL:
 16 Q. If there's something that
 17 you need to look at, I'm sure your lawyer
 18 is going to provide it to you. I don't
 19 know exactly what document you are
 20 referring to. So you keep qualifying
 21 your answer in that way. And I'm just
 22 trying to get a final answer so I'll know
 23 what your opinion is. Is that fair?
 24 A. Well, I don't want this to

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1 be a memory test. I want it to be
 2 accurate. So I want to make sure that
 3 what I'm answering is accurate.
 4 Q. I want -- I want to
 5 understand your opinions. That's why I'm
 6 here today. I want -- if there's
 7 something that you have described in your
 8 report, I'm here to ask you a question
 9 about it. If you've got another opinion
 10 that's not in your report, I want to know
 11 about it, because this is my opportunity.
 12 Okay.
 13 So it's your understanding
 14 that cosmetic talc was crushed at Ludlow
 15 and then sent to West Windsor for
 16 processing, fair?
 17 A. That's my recollection.
 18 Q. Ore from Argonaut was mined
 19 for both industrial purposes as well as
 20 cosmetic purposes, true?
 21 A. True.
 22 Q. And that's also true for the
 23 Hamm mine?
 24 A. I believe so.

<p style="text-align: right;">Page 82</p> <p>1 Q. That was also true for the 2 Hammondsville mine? 3 A. That I would have to 4 confirm. 5 Q. Hammondsville was used to 6 source cosmetic talc, true? 7 A. True. 8 Q. And Hammondsville was also 9 used to source industrial talc, true? 10 A. I -- I would want to confirm 11 my memory on that. 12 Q. But you believe that to be 13 the case? 14 A. I believe sitting here right 15 now. But again I don't necessarily want 16 to rely on memory right now. 17 Q. Please describe the geology 18 of the talc deposits that were used to 19 source J&J talc, and I'm meaning the 20 Vermont deposit. 21 A. Describe the geology? Could 22 we look at the documents that -- that 23 describe the geology? 24 Q. What's your understanding?</p>	<p style="text-align: right;">Page 84</p> <p>1 body has been, you know, characterized, 2 data has been collected, whether through 3 core drilling or other mechanisms, and 4 that data has been collected and the 5 mineralogy of a particular deposit has 6 been described in the literature for 7 example, that data would be relevant for 8 all projects in the future that relate to 9 that particular ore body, true? 10 A. So are we talking about a 11 general description of mineralogy 12 regionally? 13 Q. It could be regionally. It 14 could be a district that's being 15 described. 16 But for example, in this 17 particular case there are publications of 18 the mineralogy of Vermont and the talc 19 deposits found there that were written in 20 1950s, 1960s, some earlier, that describe 21 the general mineralogy of those deposits. 22 Do you recall those? 23 A. I think I've seen reference 24 to publications say by Chidester. I</p>
<p style="text-align: right;">Page 83</p> <p>1 A. That they are talc bodies, 2 there is a sometimes serpentine or 3 serpentinite core that grades from that 4 core to a potentially talc carbonate 5 body, then a talc body, and then 6 ultimately to the boundary which is 7 called a black wall and then into country 8 rock. 9 Q. What was the origin of 10 the -- the talc deposits in Vermont that 11 were used to source J&J talc? 12 A. The geologic origin? 13 Q. Yes. 14 A. Again, I would want to go 15 back to geologic reports on that, because 16 my focus was primarily on the mining and 17 not the -- the genesis of ultramafic 18 bodies in Vermont. 19 Q. You are not a mineralogist, 20 true? 21 A. I am not a mineralogist, but 22 I do teach mineralogy and petrology for 23 engineers. 24 Q. If the mineralogy of an ore</p>	<p style="text-align: right;">Page 85</p> <p>1 think there was another one that is 2 commonly cited. I don't remember the 3 author off the top of my head. 4 Q. And in those publications, 5 though written in the 1950s, describe 6 the -- now, their -- let me strike that 7 and start again. 8 Those publications, though 9 they're written in 1950s for example, 10 characterize the mineralogy and continue 11 to have application for future projects 12 in that area, fair? 13 A. And what do you mean by 14 projects? 15 Q. Mining projects. 16 A. Mining projects. So it 17 really depends on the scale that you're 18 talking about. And it also depends on 19 re-interpretation of geology since then 20 because we're much better at age dating 21 rocks. We're much better at 22 understanding tectonic movements and -- 23 and what was occurring when over millions 24 of years. So maybe they are relevant on</p>

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1 a general level. Maybe they are not.
2 And they may not be applicable when you
3 actually get down to the mining zone.

4 Q. All right. But the
5 fundamental geology doesn't change --
6 hasn't changed in the last hundred years,
7 fair?

8 A. The rocks haven't changed --

9 Q. Correct.

10 A. -- perhaps in a million
11 years, but the -- the geologic science
12 has evolved. And again it would come
13 down to revisions that can be made based
14 on new analytical techniques particularly
15 for aged dating.

16 Q. But the fundamental
17 mineralogy would not vary over that
18 particular time period?

19 A. The -- the minerals that are
20 in the rocks are -- are still there. The
21 interpretation of the mineralogy could
22 potentially change.

23 Q. May change, may not change?

24 A. It depends on the level of

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1 detail of the analysis of the minerals.

2 Q. If the geochemistry of a
3 particular ore body has been evaluated,
4 the data regarding that geochemistry
5 would be relevant for the entire period
6 of time that ore body is mined, true?

7 A. So when you say
8 geochemistry, could you clarify for me --

9 Q. The presence of heavy
10 metals, for example.

11 A. The presence of heavy
12 metals. And you're, again, asking
13 specifically what about the heavy metals?

14 Q. I'm asking if the
15 fundamental geochemistry of a particular
16 ore body has been evaluated and described
17 in the literature, that would be relevant
18 for, you know, many years after that
19 publication was published, fair?

20 A. Maybe not. Again, it
21 depends on analytical techniques and
22 their resolution. How samples were
23 taken. So it -- it would really depend a
24 lot on when initial data were taken, what

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1 techniques, and what's available now.

2 Q. If you assume the data is
3 correct, and if you assume -- assume the
4 methodology that was used is correct, and
5 there's been a description of the
6 geochemistry of a particular ore body,
7 that data would continue to be relevant
8 for decades after the publication of that
9 material, true?

10 A. Again, it -- it really
11 depends on how those data were collected
12 and analyzed to start with. And so I
13 can't say that something collected and
14 analyzed in the 1950s could be duplicated
15 with better techniques today. I -- I
16 don't know the answer to that.

17 Q. In terms of publications
18 like that, so we are talking about in
19 particular talc, in some of the -- the
20 publications that were written in the
21 '50s for example, the early '60s,
22 Chidester, do you have any basis to say
23 that those publications are no longer
24 relevant to the talc ore bodies in

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1 Vermont?

2 A. So I have not read Chidester
3 and I couldn't answer specifically to
4 Chidester.

5 Q. Have you had -- have you
6 read Seymour?

7 A. I have not read Seymour.

8 Q. Have you read Van Gosen on
9 talc deposits?

10 A. I don't recall if I've read
11 all of Van Gosen. I may have seen some
12 of Van Gosen.

13 Q. Have you read the Ratté
14 publication on the mineralogy of Vermont?

15 A. Which publication.

16 Q. Ratté?

17 A. Ratté. And where is that in
18 my list?

19 Q. I'm asking you, I'm not
20 looking at your list.

21 A. Oh, okay. I don't recognize
22 that name. I guess I'd have to see the
23 citation.

24 Q. Charles Ratté, Mineral

<p style="text-align: right;">Page 90</p> <p>1 Resource Provinces of Vermont, Geological 2 Survey, 1982. 3 A. I don't recall referencing 4 that in my report. 5 Q. Have you read Robert Virta, 6 "The phase relationship of talc and 7 amphiboles in a fibrous talc sample," 8 Bureau of Mines, 1985? 9 A. I -- I may have seen that 10 paper. I don't recall. But it's -- 11 Q. If it's not on your list you 12 have not seen it, correct? 13 A. Well, I may have seen it in 14 passing and decided that it wasn't 15 relevant to looking at the -- the mine 16 planning. 17 Q. Do you have any opinions 18 regarding the mine planning -- not 19 planning -- planning and implementation 20 that was conducted in the Italian talc 21 mines? 22 A. So do I have a opinion on 23 the mine planning that was done or the 24 mine operations?</p>	<p style="text-align: right;">Page 92</p> <p>1 of the mine, I have not seen maps of the 2 Fontaine mine. 3 Q. You've not seen planning 4 documents for the Italian talc mines that 5 were used to source Baby Powder and 6 Shower to Shower, true? 7 A. So planning maps, did you 8 say? 9 Q. I think I said mine plans, 10 or planning documents? 11 A. Planning documents would 12 include mine maps. Again, I have not 13 seen mine maps for Fontaine. 14 Q. Or plans of any other type? 15 A. Or plans. I've seen 16 descriptions of the mining methods. 17 Q. What's your understanding of 18 the geological formation of the talc 19 deposit in China that is used to source 20 J&J talcum powder products? 21 A. So again, I'm not focused on 22 the geologic formation of these deposits. 23 I'm focused on the mining methods and the 24 beneficiation. The descriptions that</p>
<p style="text-align: right;">Page 91</p> <p>1 Q. Yes. 2 A. So there's very little 3 information other than what has been 4 described in trip reports for the mining 5 operation. And I don't believe I saw a 6 published report on mine plans for the 7 Fontaine mine. 8 Q. Do you have any opinions 9 regarding the mine planning for the 10 Italian mines that were used to source 11 Johnson & Johnson's Baby Powder or Shower 12 to Shower? 13 A. So what I have seen from 14 described reports, describe the mining 15 methods, and describe the mining process. 16 And how the talc was sorted. I don't 17 know that I have seen a published mine 18 plan. 19 Q. So you don't have any 20 opinions regarding the mine planning or 21 mine plan of the mines in Italy that were 22 used to source J&J talcum powder 23 products, true? 24 A. If you mean mine plan maps</p>	<p style="text-align: right;">Page 93</p> <p>1 I've seen of the geology indicate that 2 it's carbonate based and is a pure talc 3 or a high grade talc I should say. 4 Q. It's a deposit that is 5 characterized by high levels of dolomite, 6 true? 7 A. I would have to look at some 8 documents to confirm dolomite. 9 Q. How about chlorite? 10 A. That I don't know without 11 looking at documents. 12 Q. Have you seen any data -- 13 strike that. Let me ask one question 14 before I get there. 15 What's the name of the mine 16 or mines in China that are used to source 17 Johnson & Johnson's Baby Powder? 18 A. The Chinese names I would 19 have to look in my report if that's okay. 20 Q. Sure. 21 A. Okay. So I list a surface 22 mine in Guangxi Province, Longshen County 23 in China. I would have to look at one of 24 the documents to get the exact name of</p>

<p style="text-align: right;">Page 94</p> <p>1 the mine, because I'll mispronounce it. 2 It's something on the order of Guping or 3 something, I think. I want to go back 4 and look at that document. 5 Q. Is the Zhizhuo -- and 6 forgive my pronunciation, but I think 7 that's close. Alex can probably tell me. 8 Is the Zhizhuo mine one of the mines that 9 was used to source Johnson & Johnson 10 talcum powder products? 11 A. I'd want to go back and look 12 at that document to make certain which 13 mines were which. 14 Q. Have you seen any mine 15 planning documents related to the Chinese 16 mine, or mines used to source Johnson & 17 Johnson products? 18 A. I have not seen mine plans 19 for the mine in China. 20 Q. Have you seen drill core 21 logs or any similar data from the mines 22 in China used to source -- source J&J 23 talcum powder products? 24 A. No.</p>	<p style="text-align: right;">Page 96</p> <p>1 from testing from the tests that 2 ostensibly have been run by the Guangxi 3 University lab, whether that be, you 4 know, TEM data, SEM data, XRD data, et 5 cetera? 6 A. I would have to look at some 7 of the documents for the Houston mill to 8 see if they had the university test 9 results in the documents when they 10 received shipment in Houston. 11 Q. Do you -- I'm not asking for 12 any summary documents. I'm asking for 13 underlying data from that testing. Have 14 you seen any XRD, TEM, or SEM output or 15 data from that testing? 16 A. And I would have to see if 17 those fundamental data were attached to 18 anything that was received in Houston. 19 Q. Do you recall such data 20 being attached as you sit here today? 21 A. I don't without going back 22 and looking at some of the documents. 23 Q. So I'll represent to you 24 that I have -- I or my colleagues -- have</p>
<p style="text-align: right;">Page 95</p> <p>1 Q. In your report on Page 5, 2 you mention that the Guangxi University 3 tests talc ore for quality. 4 Do you see that? 5 A. Yes. 6 Q. And in relation to that 7 testing, have you seen any test results 8 from the Guangxi University testing? 9 A. I would have to go back and 10 look at some of the documents to see if 11 there were specific test results from 12 that university. 13 Q. Do you recall any as you sit 14 here today? 15 A. Possibly. But I'm not sure. 16 Q. Have you seen any 17 photomicrographs from that testing? 18 A. I don't think I looked for 19 them. 20 Q. So that's a no to my 21 question? 22 A. If I have seen them, I would 23 agree I have not. 24 Q. Have you seen any other data</p>	<p style="text-align: right;">Page 97</p> <p>1 looked through every document that's been 2 disclosed in this litigation regarding 3 geology testing, et cetera. If I've 4 never seen any XRD output, SEM output, 5 you know, TEM underlying data, would you 6 agree with me that it's not been 7 provided? 8 MR. CHACHKES: Objection. 9 THE WITNESS: I might ask a 10 second opinion, but... 11 BY MS. O'DELL: 12 Q. You have no reason to 13 disagree with me? 14 A. I don't have a reason to 15 disagree. 16 Q. What is JORC J-O-R-K? 17 A. C. 18 Q. C, excuse me. 19 A. JORC is joint ore reserve 20 committee. 21 Q. And that joint ore resource 22 committee is a -- or document, is 23 published by the Australasian -- I can't 24 say this. Forgive me. Australasian --</p>

<p style="text-align: right;">Page 98</p> <p>1 Pacific Rim is easier. Australasian code 2 for reporting of mineral resources and 3 ore reserves? 4 A. Correct. 5 Q. And the Pacific of JORC is 6 to institute some type of standard or 7 agreed upon reporting in order to 8 evaluate ore reserves, correct? 9 A. And resources. 10 Q. And essentially the purpose 11 of that document, JORC, if you will, is 12 to ensure that ore reserves are 13 calculated with some accuracy for 14 purposes of evaluating the economic value 15 of a particular ore body, true? 16 A. So it is for public 17 reporting of resources in reserves to 18 protect investors from erroneous reports 19 of resources and reserves. So it sets a 20 professional standard for how those 21 resources and reserves should be 22 calculated and reported. 23 Q. It is not a required 24 reporting mechanism for mines in the</p>	<p style="text-align: right;">Page 100</p> <p>1 adherence to JORC, true? 2 A. Adherence to JORC as 3 published on the JORC.org website, true. 4 Q. As to the mines in China, do 5 you have any information to suggest that 6 the Chinese mining company is in 7 compliance with the JORC standards? 8 A. I don't have information. 9 Q. In terms of Vermont, would 10 it be fair to say that in relation to the 11 Vermont talc mines, that they were never 12 in compliance with JORC standards? 13 A. I don't know that I can say 14 they were never in compliance. Rio 15 Tinto, I believe, followed JORC as 16 largely an Australian company. I don't 17 have complete records to know what was 18 reported for talc resources and reserves 19 through Rio Tinto. 20 Q. During the -- during the 21 time period that Vermont was used to 22 source Johnson & Johnson's talcum powder 23 products, approximately 1960 to 2000 -- 24 early 2003, do you have any information</p>
<p style="text-align: right;">Page 99</p> <p>1 United States, true? 2 A. So there is a harmonization 3 group for securities exchanges called 4 CRIRSCO. So all of the various security 5 exchanges that deal with mine resource 6 and reserve reporting participate through 7 professional organizations within 8 CRIRSCO, a worldwide organization. And 9 JORC has been a permanent standard in 10 that harmonization worldwide for 11 securities exchanges. 12 So the Securities & Exchange 13 Commission in the U.S., the SEC, used a 14 different standard called Guide 7 until 15 quite recently. And now they have agreed 16 to change Guide 7 and update it to be 17 more in alignment with JORC. 18 Q. But the SEC does not, has 19 not in the past and currently does not 20 require adherence to JORC, true? 21 A. It's a similar standard. It 22 leaves out certain categories of 23 resources. 24 Q. The SEC does not require</p>	<p style="text-align: right;">Page 101</p> <p>1 to suggest that either Windsor Minerals 2 or Cyprus Minerals or any of the 3 companies that owns -- Imerys, were in 4 compliance with JORC during the time they 5 operated the mines? 6 A. Well, JORC didn't come into 7 existence until 1970s, I believe. I'd 8 have to look at the exact date for when 9 JORC came into compliance. I believe 10 Guide 7 for the SEC, late '70s, early 11 '80s, perhaps as well. So you can only 12 go back as far as those standards of 13 practice existed. 14 Q. That's fair -- that's fair 15 enough. 16 Following the creation of 17 JORC, 1970s, whatever it might have been. 18 And obviously the talc mines were in 19 operation in Vermont, the ones that were 20 used to source Baby Powder. Do you have 21 any data to suggest that the operations 22 were in compliance with the mandates of 23 JORC? 24 A. I have seen reference to</p>

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1 JORC in some of the mine plans during the
 2 Rio Tinto ownership.
 3 Q. And, in fact, Rio Tinto
 4 in -- in 2008 in a document states that
 5 they were not in JORC compliance.
 6 A. Not at that stage of the
 7 planning.
 8 Q. And do you have any data to
 9 suggest that they were in compliance with
 10 JORC prior to 2008?
 11 A. I would have to go back and
 12 look at earlier mine documents.
 13 Q. If JORC was never mentioned
 14 in a Rio Tinto or Imerys or Cyprus or
 15 West Windsor Minerals document prior to
 16 2008, would you agree with me it's more
 17 likely than not they were not in
 18 compliance with JORC?
 19 A. Not necessarily. It doesn't
 20 have to say this is in compliance with
 21 JORC to be in compliance with JORC.
 22 Q. Do you have any data to
 23 suggest they were in compliance prior to
 24 2008?

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1 A. Were or were not in
 2 compliance?
 3 Q. Were in compliance.
 4 A. I -- I don't have
 5 information that they were or were not.
 6 Q. You can't say one way or the
 7 other?
 8 A. I don't have that
 9 information.
 10 (Document marked for
 11 identification as Exhibit
 12 Poulton-5.)
 13 BY MS. O'DELL:
 14 Q. Let me show you what I'm
 15 going to mark as Exhibit 5. It is a copy
 16 of Dr. Cook's report that was served in
 17 the litigation. We'll be referring to
 18 that some.
 19 And then also hand you what
 20 I'm marking as Exhibit 6 which is a copy
 21 of Dr. Krekeler's report.
 22 (Document marked for
 23 identification as Exhibit
 24 Poulton-6.)

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1 BY MS. O'DELL:
 2 Q. And you reviewed both of
 3 these reports in writing your report in
 4 this case, fair?
 5 A. Correct.
 6 MR. CHACHKES: Just for the
 7 record, Exhibit 5 is the amended
 8 report, right?
 9 MS. O'DELL: Yes. That's
 10 correct. Exhibit 5 is Dr. Cook's
 11 amended report. Thanks for the
 12 clarification.
 13 BY MS. O'DELL:
 14 Q. If you'll turn to Page 6 of
 15 your report, and we'll be toggling back
 16 and forth a little bit between reports.
 17 But, to start our
 18 discussion, you criticize Dr. Cook and
 19 Dr. Krekeler for, as you put it,
 20 improperly conflating non-ore samples and
 21 ore samples.
 22 Fair?
 23 A. Correct.
 24 Q. And you base that in large

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1 measure on statements in which Dr. Cook
 2 and Dr. Krekeler refer to a report of
 3 Dr. Fred Pooley from -- regarding Italian
 4 mines?
 5 A. Yes.
 6 Q. And fundamentally,
 7 Dr. Poulton, is it your position that all
 8 of the samples that Dr. Pooley analyzed
 9 in that report regarding the Italian
 10 mine, that those samples were not
 11 material that would be considered ore?
 12 A. My recollection is that he
 13 was, in this case, specifically
 14 collecting samples of non-ore and took a
 15 few examples of ore but was predominately
 16 looking at non-ore.
 17 Q. But he considered both ore
 18 and non-ore in the report, fair?
 19 A. He had a couple of ore
 20 samples.
 21 Q. So he had ore samples and
 22 what -- and what you would term as
 23 "non-ore" --
 24 A. Non-ore.

<p style="text-align: right;">Page 106</p> <p>1 Q. -- true?</p> <p>2 A. I believe so.</p> <p>3 (Document marked for</p> <p>4 identification as Exhibit</p> <p>5 Poulton-7.)</p> <p>6 BY MS. O'DELL:</p> <p>7 Q. And I'm going to hand you</p> <p>8 what I'm going to mark as Exhibit</p> <p>9 Number 7 for your deposition. And ask</p> <p>10 you if that's the -- the Pooley report</p> <p>11 that you're referring to in your report</p> <p>12 at Page 6?</p> <p>13 A. I'd have to look at the one</p> <p>14 I had, because I didn't have color</p> <p>15 pictures in it. So I'd have to find out</p> <p>16 if this is the same one.</p> <p>17 MR. CHACHKES: Let's not</p> <p>18 forget to write in Poulton on the</p> <p>19 exhibit tags. I see they are</p> <p>20 blank right now with just numbers.</p> <p>21 (Whereupon, a discussion was</p> <p>22 held off the record.)</p> <p>23 BY MS. O'DELL:</p> <p>24 Q. So taking a look at this,</p>	<p style="text-align: right;">Page 108</p> <p>1 I -- I haven't seen color pictures in my</p> <p>2 report. So I would like to know that</p> <p>3 it's exactly the same.</p> <p>4 MS. O'DELL: Let's go off.</p> <p>5 THE VIDEOGRAPHER: All</p> <p>6 right. The time is 11:23 a.m.</p> <p>7 Off the record.</p> <p>8 (Brief pause.)</p> <p>9 THE VIDEOGRAPHER: Okay. We</p> <p>10 are back on the record. The time</p> <p>11 is 11:44 a.m.</p> <p>12 BY MS. O'DELL:</p> <p>13 Q. Dr. Poulton, I've put before</p> <p>14 you your copy of Dr. Pooley's report</p> <p>15 regarding Italian mine samples. I've</p> <p>16 marked it as Exhibit 8. Do you have that</p> <p>17 in front of you?</p> <p>18 A. I do.</p> <p>19 (Document marked for</p> <p>20 identification as Exhibit</p> <p>21 Poulton-8.)</p> <p>22 BY MS. O'DELL:</p> <p>23 Q. If you'll turn to Page 8 --</p> <p>24 excuse me, not 8. 2 of his actual</p>
<p style="text-align: right;">Page 107</p> <p>1 what I've marked as Exhibit 7, does this</p> <p>2 appear to be the Pooley report that you</p> <p>3 reviewed in reaching your opinions</p> <p>4 expressed on Page 6 and thereafter?</p> <p>5 A. It seems to have different</p> <p>6 numbers on it. So I think I would have</p> <p>7 to put mine side by side with this to</p> <p>8 confirm.</p> <p>9 Q. Okay. Did you bring yours</p> <p>10 with you?</p> <p>11 A. I don't have it with.</p> <p>12 MR. CHACHKES: We -- we do</p> <p>13 have every exhibit somewhere here</p> <p>14 in the room.</p> <p>15 BY MS. O'DELL:</p> <p>16 Q. Okay. Well, I -- I believe</p> <p>17 this to be the same report that you've</p> <p>18 looked at, the -- the one I have marked</p> <p>19 as -- as Exhibit 7.</p> <p>20 But if you need to see your</p> <p>21 own copy or your lawyer's copy to confirm</p> <p>22 that, we can go off the record for a</p> <p>23 moment and y'all can find the exhibit.</p> <p>24 A. Yeah, I'd like to because</p>	<p style="text-align: right;">Page 109</p> <p>1 report, which has at the bottom, a number</p> <p>2 JNJ 000322355.</p> <p>3 Do you see that?</p> <p>4 A. Yes.</p> <p>5 Q. It's page --</p> <p>6 A. It also says JNJ 0050290.</p> <p>7 Is that the same page?</p> <p>8 Q. It is.</p> <p>9 A. Okay.</p> <p>10 Q. So for our purposes today,</p> <p>11 we'll go -- we'll go with the bottom</p> <p>12 Bates number.</p> <p>13 A. Okay.</p> <p>14 Q. What you see right there on</p> <p>15 the screen.</p> <p>16 A. Okay.</p> <p>17 Q. And if you'll look at the</p> <p>18 top of the page, the second paragraph</p> <p>19 beginning with the objective.</p> <p>20 Do you see that?</p> <p>21 A. Yes.</p> <p>22 Q. It says, "The objective of</p> <p>23 the examination has been mainly to</p> <p>24 establish the major minerals which occur</p>

<p style="text-align: right;">Page 110</p> <p>1 in association with talc at the Italian 2 mine. In particular, to look at the 3 association of these minerals with talc, 4 and especially those minerals which are 5 of the same family as the commercial 6 asbestos minerals, i.e., the amphiboles 7 and serpentine." 8 Did I read that correctly? 9 A. I see that, yes. 10 Q. And -- and so this is 11 Dr. Pooley's description of his objective 12 for this analysis, true? 13 A. Yes, that he is looking at 14 the minerals that are associated with the 15 talc. Not necessarily the talc ore. 16 Q. Well, it can be associated 17 with talc in the same ore body. Fair? 18 A. Ore body being what's 19 extracted versus the surrounding rock 20 would be different. 21 Q. Well, asbestos minerals can 22 occur within talc formations, fair? 23 A. I would disagree to some 24 extent with that statement. Because it</p>	<p style="text-align: right;">Page 112</p> <p>1 evaluate -- let me just read it. 2 His objective as stated was, 3 "The examination has been mainly to 4 establish the major minerals which occur 5 in association with talc at the Italian 6 mine," true? 7 A. So that statement doesn't 8 mean that those minerals are associated 9 with the commercial minable talc. It 10 means that they're associated surrounding 11 the talc body when you look at where he 12 took samples. 13 Q. If you'll listen to my 14 question. His -- I'm not asking you 15 about commercial Italian talc in a 16 general sense. I'm asking you about the 17 objective of his study. And he stated 18 his objective in his report, true? 19 A. Well, I believe I answered 20 that question, that he is looking at 21 primarily samples surrounding the talc 22 ore body in the Italian mine. So mine 23 would mean that they're mining commercial 24 talc. And he's looking at the minerals</p>
<p style="text-align: right;">Page 111</p> <p>1 very much depends on the origin of the 2 talc and whether you're talking about the 3 actual mining zone of commercial high 4 grade talc. 5 Q. In regard to Dr. Pooley's 6 study in -- of Italian talc, he was 7 studying not only talc, but those 8 minerals associated with talc in the 9 Italian mine, true? 10 A. That -- that would be the 11 minerals that are surrounding the talc 12 ore body. Not necessarily the minerals 13 that are in the commercial talc. 14 Q. Well you're speculating in 15 that sense. I'm asking you what he set 16 out to do in this report. 17 MR. CHACHKES: Objection. 18 BY MS. O'DELL: 19 Q. His -- 20 MS. O'DELL: Let me finish. 21 MR. CHACHKES: I thought you 22 were done. Sorry. 23 BY MS. O'DELL: 24 Q. His objective was to</p>	<p style="text-align: right;">Page 113</p> <p>1 that are surrounding that ore body to 2 understand whether they might contain 3 things that could be problematic for that 4 commercial talc. 5 Q. He is examining samples to 6 identify minerals which occur in 7 association with talc at the Italian 8 mine, true? 9 A. So. 10 Q. That's what he states? 11 A. Association with talc at the 12 Italian mine means that they are 13 surrounding the talc. 14 Q. If you'll turn to the next 15 page, it lists the samples that 16 Dr. Pooley examined. Sample I.5 was 17 general ore, meaning general talc ore, 18 fair? 19 A. Yes. 20 Q. He looked at I.7 which was 21 mica schist specimen? 22 A. Which is not the talc ore. 23 Q. I'm just asking if you 24 looked at that sample.</p>

<p style="text-align: right;">Page 114</p> <p>1 A. So I see that he lists I.7, 2 mica schist specimen -- 3 Q. So the answer to my question 4 was yes? 5 A. Could you repeat your 6 question for me. 7 Q. My question was, he looked 8 at a Sample I.7, and it was -- he 9 identified it as mica schist specimen? 10 A. That's what it says. 11 Q. He looked -- examined sample 12 I.19 which was tremolite, quartz and talc 13 in one sample? 14 A. That's what it says. 15 Q. I.24 was also a talc sample. 16 It says it's next to carbonate face 2? 17 A. That's what it says. 18 Q. So examined talc in that 19 sample, true? 20 A. That's what it says. 21 Q. And if you'll turn to the 22 next page, he looked at a sample that he 23 identified as I.41 which was described as 24 "face 2, good specimen."</p>	<p style="text-align: right;">Page 116</p> <p>1 microcline, plagioclase, biotite, pennine 2 epidote, clinozoisite" -- do you know how 3 to say that? Clinozoisite? 4 A. You know, my copy is so 5 smudged, I can't read it. 6 Q. Okay. 7 -- "hornblende, and then 8 actinolite." 9 Do you see that? 10 A. I see those. 11 Q. Were what he referred to as 12 minor or accessory minerals within the 13 deposit, true? 14 A. Within the talc deposits, he 15 is listing a range of specimens here 16 which may or may not again be in the talc 17 ore. It could be in the surrounding 18 rock. 19 Q. And it could also be in the 20 talc ore, fair? 21 A. We would have to look at the 22 specimens that came specifically from the 23 talc ore. 24 Q. Is it agreed that within in</p>
<p style="text-align: right;">Page 115</p> <p>1 Do you see that? 2 A. I see what it says there. 3 Q. If you'll turn over to Page 4 \$6 of Exhibit 8. He gives a summary in 5 part of the method he used. 6 And then he goes onto 7 different a description of some of the 8 constituents. Begin in the first 9 paragraph he says, "Thin and polished 10 sections were prepared of the specimens 11 of wallrock and, where possible, the talc 12 ore." 13 Do you see that? 14 A. I see where it says that. 15 Q. And it goes on to say, "The 16 minerals which formed a major constituent 17 in at least one of the sections were 18 quartz, muscovite, talc, chlorite (var 19 sheridanite), calcite, garnet and 20 tremolite." 21 Do you see that? 22 A. Yes. 23 Q. It goes on to say, "Phases 24 which were always minor or accessory were</p>	<p style="text-align: right;">Page 117</p> <p>1 the specimens that he examined and 2 reported on in Exhibit 8, Dr. Pooley 3 found tremolite? True? 4 A. Could you repeat that 5 question for me? 6 Q. Dr. Pooley found tremolite 7 in the specimens that he examined and 8 reported on in Exhibit 8? 9 A. So we would want to look at 10 the specific specimens and see which ones 11 listed tremolite. 12 Q. Are you disputing that he 13 reported that he found tremolite within 14 these samples? 15 A. I would want to look at each 16 specific specimen to see what each one 17 said. 18 Q. So you can't agree with 19 that, just based on your knowledge of the 20 document? 21 A. I would want -- because he 22 has a number of specimens here, I would 23 want to know what each one said. 24 Q. Just sitting here today, you</p>

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1 can't tell us whether Dr. Pooley reported
 2 that he found tremolite or actinolite
 3 within the specimens that he examined and
 4 reported on in Exhibit 8?
 5 A. Well, we can go through the
 6 specimens one by one.
 7 Q. All right. We can do that.
 8 A. We can do that.
 9 Q. And we're going to go
 10 through a number of them. But I'm just
 11 asking as a general matter, do you know
 12 that one way or the other?
 13 A. Well, I would again be very
 14 clear about looking at each analysis.
 15 Q. Turn to Page 6 of his
 16 report. It's at the top. It's Page 6.
 17 The Bates number at the bottom ends 361.
 18 A. Are you sure it's 6 or 8?
 19 Q. That's a good question. It
 20 could be 8. It's eight. Sorry. Looked
 21 like -- as you mentioned, this is not the
 22 best copy.
 23 Are you there?
 24 A. And can you repeat the Bates

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1 number for me?
 2 Q. 361.
 3 A. 361 yes.
 4 Q. He is describing what he
 5 found with specimen I.5, general ore.
 6 Do you see that?
 7 A. I see that.
 8 Q. And he reports that, "A
 9 coarse aggregate of curving foliaceous
 10 and feathery crystals of talc displaying
 11 evidence of shearing and translation
 12 twinning. As in Specimen I.3, dusty
 13 inclusions of transparent mineral with a
 14 general prismatic habit occurs dispersed
 15 in the talc. As before, but to a lesser
 16 extent, the talc is cleansed of these
 17 inclusions along zones associated with
 18 deformation and translation twinning, and
 19 it appears that the inclusions" -- he's
 20 talking about these prismatic
 21 inclusions -- have either been converted
 22 to talc (as in conversion of tremolite to
 23 talc by low temperature)."
 24 Do you see that?

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1 A. Yes, yes.
 2 Q. And you would agree that
 3 there were inclusions in the specimen I.5
 4 of general talc ore, which had what
 5 appears to be some metamorphous of
 6 tremolite, true?
 7 A. So he's saying that the
 8 inclusion has been converted to talc.
 9 Q. "As in conversion of
 10 tremolite to talc by low temperature CO2
 11 metamorphism (sic)."
 12 Do you see that?
 13 A. That's where -- I see that
 14 sentence.
 15 Q. And those inclusions --
 16 MR. CHACHKES: I'm just
 17 going to object. I think you
 18 misread. I see "CO2,
 19 metasomatism."
 20 MS. O'DELL: That's fair.
 21 That's fair. Not intentional.
 22 BY MS. O'DELL:
 23 Q. So tremolite, according to
 24 Dr. Pooley, had been present and it had

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1 converted at least to some degree, maybe
 2 not completely, but to some degree, to
 3 talc, fair?
 4 A. That seems to be his
 5 conclusion here.
 6 Q. If you'll turn over to Page
 7 11 of his report, Bates ending 364, he
 8 reports on his finding in relation to
 9 Specimen I.7.
 10 Do you see that?
 11 A. I see I.7.
 12 Q. And it says, "This specimen
 13 of wallrock is quartz-muscovite-garnet
 14 schist" -- he identifies certain
 15 figures -- "containing some accessory
 16 actinolite, Brown hornblende, talc, and
 17 rare biotite."
 18 Did I read that correctly?
 19 A. I believe so.
 20 Q. And in I.7 Dr. Pooley
 21 identified actinolite. Fair?
 22 A. He says some accessory
 23 actinolite.
 24 Q. And then if you'll turn over

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1 to Page 32 of his report. Bates number
2 ending 385. He's reporting on Specimen
3 I.24. And he refers to it as talc next
4 to carbonate.

5 A. Mm-hmm.

6 Q. Do you see that?

7 A. I do.

8 Q. And he says, "This specimen
9 of talc ore consists dominantly of course
10 fiber" -- "fibrous talc with minor
11 chlorite."

12 Do you see that?

13 A. I see that.

14 Q. And so in that sample of
15 talc ore, he identifies fibrous material,
16 true?

17 A. He identifies fibrous talc.

18 Q. Okay. He identifies fibrous
19 material, true?

20 A. He identifies fibrous talc.

21 Q. If you'll turn to -- we've
22 got to go back two pages. Sorry, I
23 skipped one I intended to mention, and
24 that's on Page 28. Specimen I.19.

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1 Do you see that?

2 A. Could you just confirm --
3 let's see. Specimen, Page 28, the
4 specimen consists. Okay.

5 Q. He reports on Specimen I.19
6 and he states, "This specimen consists of
7 an aggregate of course grain anhedral
8 magnesite intergrown with solitary bladed
9 crystals and crystal aggregates of
10 tremolite associated with minor amounts
11 of fine fibrous talc and rare anhedral
12 grains of quartz."

13 Do you see that?

14 A. I see that.

15 Q. And then he goes -- he has a
16 photo microphotograph which shows
17 dissections under PPL showing course
18 bladed tremolite intergrown with very
19 course magnesite.

20 And so he confirms in
21 Specimen I.19 the presence of tremolite
22 and fibrous talc, fair?

23 A. So he does identify crystal
24 aggregates of tremolite and minor amounts

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1 of fibrous talc.

2 Q. And if you'll go to Page 83
3 of the document. Bates number ending
4 396.

5 A. Oh, that might take me a
6 while to find. 396.

7 Q. Page 83 of the document.
8 Bates number ending 396.

9 A. I think that's actually
10 Page 43 maybe.

11 Q. It could be. 396. But
12 it's -- it's Specimen I.41.

13 A. Okay. I see that page.

14 Q. Okay. Are you there?

15 A. I am there.

16 Q. And this is a specimen of
17 talc ore, correct?

18 A. That's what it says.

19 Q. And it says, "This specimen
20 of talc ore consists of course aggregate
21 of feathery talc intimately intergrown
22 with minor chlorite" -- it says V-A-R
23 period -- "sheridanite, and enclosing
24 rare large porphyroblasts of subhedral

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1 garnet which occasionally contain long
2 prismatic inclusions of tremolite."

3 Did I read that correctly?

4 A. Yes.

5 Q. And this would be an
6 instance where talc ore was found to
7 include tremolite, true?

8 A. The tremolite was within the
9 garnet as I read this.

10 Q. But it's within a talc ore
11 sample, true?

12 A. So -- so the garnet is
13 within a talc ore.

14 Q. And the garnet contains
15 tremolite, true?

16 A. That's what it says.

17 Q. In your report, you
18 criticize Dr. Cook and Dr. Krekeler in
19 their treatment of Dr. Pooley's report,
20 Exhibit 8. And you say in part that
21 "Dr. Pooley makes clear there is no
22 asbestiform minerals."

23 In fact, Dr. Pooley's report
24 does find the presence of fibrous

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1 material within the samples that -- that
 2 he reported on Exhibit 8?
 3 A. So fibrous is not the same
 4 as asbestiform.
 5 Q. How do you distinguish the
 6 two?
 7 A. So asbestiform means that
 8 the crystals are fibrils that have high
 9 tensile strength and flexibility and no
 10 lateral connection between fibrils. So
 11 that the fibrils can be separated from
 12 each other. That's not the same as
 13 fibrous.
 14 Q. Fibrous -- let me strike
 15 that and start again.
 16 Dr. Pooley did report on
 17 finding fibrous material within the
 18 samples that he reported on in Exhibit 8,
 19 true?
 20 A. He listed fibrous talc.
 21 Q. So the answer to my question
 22 is yes, he did report fibrous material in
 23 Exhibit 8?
 24 A. So he -- he did list fibrous

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1 talc.
 2 Q. And he also, you would
 3 agree, reported the finding of -- finding
 4 tremolite as well as actinolite within
 5 these samples?
 6 A. He reported finding
 7 tremolite and actinolite.
 8 Q. And are you aware that
 9 tremolite has been found in other tests
 10 of Italian talc?
 11 MR. CHACHKES: Objection.
 12 THE WITNESS: What other
 13 Italian talc would we be talking
 14 about?
 15 BY MS. O'DELL:
 16 Q. Let me just ask a more
 17 specific question.
 18 Are you aware of historical
 19 tests that report finding tremolite in
 20 talc from mines in Italy that were used
 21 to source Johnson & Johnson's Baby Powder
 22 and Shower to Shower?
 23 A. So we could look at other
 24 test reports for Italian samples if -- if

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1 you want to.
 2 Q. Are you aware that there
 3 have been other tests in addition to
 4 Dr. Pooley that have reported finding
 5 tremolite in samples taken from the
 6 Italian mine used to source J&J Baby
 7 Powder?
 8 A. My recollection is Battelle
 9 found tremolite, and we can look at those
 10 specific test results.
 11 Q. And are you aware of test
 12 results from the examination of Italian
 13 talc that also reported the presence of
 14 actinolite?
 15 A. So I -- I want to be careful
 16 that I make a distinction between what is
 17 called Italian talc for testing and what
 18 is considered the ore zone that was used
 19 for production and the fact that
 20 actinolite and tremolite are not
 21 asbestos.
 22 Q. They can be asbestos.
 23 A. There are asbestiform
 24 varieties, but they are called tremolite

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1 asbestos and actinolite asbestos.
 2 Q. And historically, in reports
 3 of asbestos testing, actinolite with the
 4 word asbestos has not always been
 5 included for purposes of reporting
 6 asbestiform --
 7 MR. CHACHKES: Objection.
 8 BY MS. O'DELL:
 9 Q. -- true?
 10 A. That I don't know.
 11 Q. In Dr. Pooley's report --
 12 well, let me back up and say, you state
 13 in your report that claims -- strike
 14 that. Start again.
 15 You state in your report,
 16 "Specimens collected in the hanging wall,
 17 in the football of" -- "of the ore body,
 18 are not concerning because essentially
 19 the selected mining methods used would
 20 ensure that actinolite or tremolite would
 21 not contaminate the ore used in the
 22 product," is that a -- long way of saying
 23 it, but is that a fair summary of what
 24 you -- what you said in your report?

<p style="text-align: right;">Page 130</p> <p>1 A. You may have lost me. I was 2 looking at my report while you were 3 talking. I apologize. 4 Q. All right. 5 A. So maybe we could just read 6 what my report says. 7 Q. So where -- so what were you 8 looking at in your report? 9 A. I was looking at the 10 paragraph on Page 6 that says, "and in 11 fact." 12 Is -- is that the section 13 you were referring to? 14 Q. No, actually. But you state 15 just below that, you state in the next 16 paragraph, you say, "The report," and 17 you're referring to Pooley's report, 18 Exhibit 8, "makes clear that no 19 asbestiform minerals were found." 20 And we've all -- you said 21 there's no asbestiform minerals that may 22 or may not be described, but certainly 23 there were fibrous material within the -- 24 the samples, we've agreed on that, right?</p>	<p style="text-align: right;">Page 132</p> <p>1 without any further information on your 2 part would be speculation, fair? 3 MR. LOCKE: Objection. 4 THE WITNESS: So we could go 5 back and look at more 6 descriptions. 7 BY MS. O'DELL: 8 Q. He described that as talc 9 ore, true? 10 A. That's the phrase he used. 11 But again, ore doesn't necessarily mean 12 that it is actually in a production area. 13 You do -- 14 Q. Maybe, maybe not. 15 A. You do waste some ore. 16 Q. I understand. Maybe, or 17 maybe not. That's the most you can say? 18 A. Well, I would, again, want 19 to go through the report and look 20 specifically at where he later summarized 21 those samples. 22 Q. Okay. If -- and an ore by 23 your definition is material for sale, 24 true?</p>
<p style="text-align: right;">Page 131</p> <p>1 A. There was fibrous talc 2 described. 3 Q. And -- and "any 4 non-asbestiform amphiboles identified 5 were not located in ore typical of 6 production." That's what you write. 7 Yet we've identified today 8 some talc ore that did, in fact, have 9 tremolite, true? 10 A. So we would want to look at 11 the location of those specimens to make 12 sure even though they said ore, that was 13 considered in a production area. 14 Q. He called them talc ore? 15 A. Well, that doesn't 16 necessarily mean that they would be in a 17 production area. 18 Q. Dr. Pooley referred to them 19 as talc ore, true? 20 A. He said ore, but that does 21 not necessarily equate to production 22 areas. 23 Q. Maybe, maybe not. To 24 suggest otherwise sitting here today</p>	<p style="text-align: right;">Page 133</p> <p>1 A. Yes, generally. 2 Q. You go on to say, "Some 3 specimens were collected in the hanging 4 wall, but the method of mining, which 5 consisted of hand-filling methods, 6 precluded any gross contamination of the 7 ore." 8 Is what you -- that's what 9 you state? 10 A. That's a quote from the 11 report. 12 Q. Right. And it goes on to 13 say that, "By virtue of the fact that 14 they were in the hanging wall, they would 15 not be included in the material that 16 ultimately was bottled as Johnson & 17 Johnson's Baby Powder and Shower to 18 Shower. 19 That's your -- that's your 20 opinion? 21 A. So the hanging wall is 22 outside the ore zone by definition. 23 Q. Does it mean that material 24 from a hanging wall cannot be included in</p>

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1 what's extracted from the mine, true?
 2 A. So you would mine within a
 3 margin away from that.
 4 Q. But my question is, it
 5 doesn't mean that the material from the
 6 hanging wall was not included in what was
 7 ultimately bottled for Johnson &
 8 Johnson's Baby Powder, true?
 9 A. So the mining practices
 10 would make every attempt to stay away
 11 from that material, because it is too
 12 hard to process.
 13 So is it completely
 14 theoretically hypothetically possible
 15 some of that material could be commingled
 16 with talc ore taken to a mill, maybe.
 17 Q. And you cannot say to a
 18 reasonable degree of scientific certainty
 19 that that did not occur, can you?
 20 A. I wasn't there.
 21 MR. CHACHKES: Tell me when
 22 you reach a wrapping-up point,
 23 because we're probably going to
 24 have lunch at 12:15.

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1 MS. O'DELL: Give me just a
 2 few minutes.
 3 BY MS. O'DELL:
 4 Q. Are you okay for another few
 5 minutes, Doctor?
 6 A. A few. Not 30.
 7 Q. Okay. I'll be brief. Let
 8 me ask you to look at what's previously
 9 been marked as Hopkins Exhibit 28.
 10 Have you seen that before?
 11 A. I believe so.
 12 Q. And are you aware that --
 13 that this exhibit, Hopkins-28 was a
 14 product of the examination of Dr. John
 15 Hopkins, who is a corporate
 16 representative for Johnson & Johnson?
 17 MR. CHACHKES: Objection.
 18 THE WITNESS: I actually
 19 don't know how it was produced. I
 20 just know that it was an exhibit I
 21 received.
 22 BY MS. O'DELL:
 23 Q. And it was an exhibit to
 24 John Hopkins' deposition, true?

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1 A. I assume that's true, since
 2 it was marked as an exhibit.
 3 Q. Do you know who he is?
 4 A. I don't know who he is.
 5 Q. Do you have you read his
 6 deposition?
 7 A. I only had one page of it.
 8 Q. What page of the deposition
 9 did you have?
 10 A. I'd have to actually look at
 11 my files to see which page I had.
 12 Q. So you did not see the whole
 13 deposition?
 14 A. I did not see the whole
 15 deposition.
 16 Q. And so if it lists the whole
 17 deposition on your reliance materials,
 18 that would be inaccurate; you only
 19 received one page?
 20 A. I only saw one page that
 21 came with the Cook and Krekeler
 22 documents. It's possible that it was
 23 uploaded to my box, and I missed it. But
 24 I only saw, in my documents, the one

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1 page.
 2 Q. Did you examine all of the
 3 exhibits that were identified as Hopkins
 4 deposition exhibits?
 5 A. I looked at the ones that
 6 were germane to my assignment, which was
 7 mining and beneficiation.
 8 Q. Which was reviewing Dr. Cook
 9 and Krekeler's reports. And so if they
 10 weren't referred to in Dr. Cook and
 11 Dr. Krekeler's reports specifically, it
 12 would be fair to say that you did not
 13 review those?
 14 A. Correct, unless I requested
 15 them for some reason.
 16 Q. Okay. And if you'll look at
 17 Hopkins Exhibit 28, he lists here a
 18 10/15 -- or October 15, 1957, test by
 19 Battelle. And if you'll look to the
 20 right, it says that that is of Italian
 21 talc. And the test revealed that,
 22 "Italian talc averages about 10 percent
 23 fibrous or acicular particles."
 24 Did I read that correctly?

<p style="text-align: right;">Page 138</p> <p>1 A. That's what it says.</p> <p>2 Q. And is that consistent with</p> <p>3 your understanding of the Battelle</p> <p>4 testing document -- documents?</p> <p>5 A. I would want to go back and</p> <p>6 look at that Battelle document, because</p> <p>7 they tested a number of things. And I</p> <p>8 don't actually remember which Battelle</p> <p>9 document was which.</p> <p>10 Q. If you'll look forward one</p> <p>11 line to May 9th, 1958, Exhibit J&J-1,</p> <p>12 also Battelle testing document, of talc</p> <p>13 from the Val Chisone mine, and it was</p> <p>14 processed Italian talc.</p> <p>15 Do you see that?</p> <p>16 A. I see that.</p> <p>17 Q. Processed Italian talc would</p> <p>18 be talc ore that has gone through</p> <p>19 beneficiation and is essentially is ready</p> <p>20 for bottling, true?</p> <p>21 A. I don't know how they define</p> <p>22 processed talc.</p> <p>23 Q. It would be fair to say that</p> <p>24 processed talc would be part of the talc</p>	<p style="text-align: right;">Page 140</p> <p>1 within those specimens as reported in</p> <p>2 Exhibit 8, he found tremolite, true?</p> <p>3 We've been through this.</p> <p>4 MR. CHACHKES: Objection.</p> <p>5 BY MS. O'DELL:</p> <p>6 Q. Today. So he reported</p> <p>7 tremolite, fair?</p> <p>8 A. He -- he reported tremolite</p> <p>9 in some of his studies, yes.</p> <p>10 Q. And in the test results from</p> <p>11 Battelle dated May the 9th of processed</p> <p>12 Italian talc, tremolite was also found,</p> <p>13 true?</p> <p>14 A. That's what it says.</p> <p>15 Q. And if you'll look further</p> <p>16 at May 23rd, 1958, was the date of the</p> <p>17 test, also Battelle testing of processed</p> <p>18 Italian talc from the Val Chisone mine,</p> <p>19 tremolite was found, true?</p> <p>20 A. True.</p> <p>21 Q. And 6 to 10 percent fibrous</p> <p>22 talc.</p> <p>23 Did I read that correctly?</p> <p>24 A. That's what it says.</p>
<p style="text-align: right;">Page 139</p> <p>1 ore, true?</p> <p>2 MR. CHACHKES: Objection.</p> <p>3 THE WITNESS: I believe --</p> <p>4 MR. CHACHKES: Sorry. Go</p> <p>5 ahead. Objection.</p> <p>6 THE WITNESS: I believe so.</p> <p>7 BY MS. O'DELL:</p> <p>8 Q. And it says the test</p> <p>9 revealed tremolite.</p> <p>10 Do you see that?</p> <p>11 A. I see that.</p> <p>12 Q. And that was consistent with</p> <p>13 Dr. Pooley's results as reported in</p> <p>14 Exhibit 8, true? Where Dr. Pooley also</p> <p>15 found tremolite in specimens taken from</p> <p>16 the Italian mine, true?</p> <p>17 A. So we would basically want</p> <p>18 to look at some more information as to</p> <p>19 where samples were collected before</p> <p>20 making a generalization that they were</p> <p>21 from exactly the same area.</p> <p>22 Q. I didn't say that. I said</p> <p>23 it was from the Italian mine. Dr. Pooley</p> <p>24 took specimens from the Italian mine, and</p>	<p style="text-align: right;">Page 141</p> <p>1 Q. And then in terms of</p> <p>2 Dr. Pooley's testing and the results</p> <p>3 where he found tremolite in the specimens</p> <p>4 that he looked at, those results are</p> <p>5 consistent with what Battelle found in</p> <p>6 its examination of Italian talc, true?</p> <p>7 A. I may be comparing apples</p> <p>8 and oranges, and to answer that again, I</p> <p>9 would just want to be very careful as to</p> <p>10 where Battelle samples came from relative</p> <p>11 to where Pooley samples came from. And</p> <p>12 we would also want to know whether</p> <p>13 processed talc meant that Battelle ground</p> <p>14 it to some specification, or if somehow</p> <p>15 it was processed by Johnson & Johnson.</p> <p>16 Q. And in your mind, that would</p> <p>17 make a difference?</p> <p>18 A. It could. There could be</p> <p>19 beneficiation steps that were missing</p> <p>20 between actual production versus a</p> <p>21 laboratory test.</p> <p>22 Q. Is it your opinion to a</p> <p>23 reasonable degree of scientific certainty</p> <p>24 that asbestos found in talc can be</p>

<p style="text-align: right;">Page 142</p> <p>1 removed through a beneficiation process?</p> <p>2 MR. CHACHKES: Objection.</p> <p>3 THE WITNESS: So the</p> <p>4 question is could asbestos be</p> <p>5 removed through beneficiation?</p> <p>6 BY MS. O'DELL:</p> <p>7 Q. Yes.</p> <p>8 A. Okay. There are several</p> <p>9 steps where it can be removed.</p> <p>10 Q. Can it be completely</p> <p>11 removed?</p> <p>12 A. I don't know, depending on</p> <p>13 the concentration and the processing</p> <p>14 steps used. I would want to see data.</p> <p>15 Q. Have you examined -- well,</p> <p>16 before I go there, we'll get there in a</p> <p>17 bit. I want to come back to that.</p> <p>18 When you talk about</p> <p>19 processed Italian talc and you say</p> <p>20 there's some confusion about whether that</p> <p>21 was the process from -- that might have</p> <p>22 been undertaken by Battelle versus</p> <p>23 Johnson & Johnson. Let's focus on that.</p> <p>24 The material that was tested</p>	<p style="text-align: right;">Page 144</p> <p>1 BY MS. O'DELL:</p> <p>2 Q. This correlates with J&J-1,</p> <p>3 which is the May 9, 1958, test that we</p> <p>4 just discussed.</p> <p>5 A. Okay.</p> <p>6 Q. Do you see that?</p> <p>7 A. I do.</p> <p>8 Q. If you'll turn to Bates</p> <p>9 number ending 911.</p> <p>10 A. Okay.</p> <p>11 Q. At the bottom, last</p> <p>12 paragraph, "The measurements presented in</p> <p>13 this report were made on the same samples</p> <p>14 of EGT Extra 0000 talc obtained from</p> <p>15 Cranford, New Jersey, plant which was</p> <p>16 used in the work previously reported."</p> <p>17 So this is beneficiated talc</p> <p>18 that has been through the Johnson &</p> <p>19 Johnson plant, correct?</p> <p>20 MR. CHACHKES: Just for the</p> <p>21 record -- the record, you left out</p> <p>22 "except where otherwise noted."</p> <p>23 MS. O'DELL: Okay. Fair</p> <p>24 enough.</p>
<p style="text-align: right;">Page 143</p> <p>1 was processed Italian talc. And is it</p> <p>2 your belief that that does not mean talc</p> <p>3 that has been through the beneficiation</p> <p>4 process?</p> <p>5 A. I'd want to look at those</p> <p>6 Battelle reports and see exactly what</p> <p>7 they did.</p> <p>8 MR. CHACHKES: Leigh, how</p> <p>9 much longer are you planning?</p> <p>10 MS. O'DELL: Give me just a</p> <p>11 few minutes. I was trying to</p> <p>12 finish this section.</p> <p>13 You know, I think this</p> <p>14 exhibit -- I think the fact that</p> <p>15 this is processed talc is pretty</p> <p>16 clear. But if -- if Dr. Poulton</p> <p>17 doesn't remember then I'd like to</p> <p>18 show her.</p> <p>19 BY MS. O'DELL:</p> <p>20 Q. Let me show you what I'm</p> <p>21 marking as Exhibit 9 to your deposition.</p> <p>22 (Document marked for</p> <p>23 identification as Exhibit</p> <p>24 Poulton-9.)</p>	<p style="text-align: right;">Page 145</p> <p>1 BY MS. O'DELL:</p> <p>2 Q. So this is beneficiated or</p> <p>3 processed talc that has been processed by</p> <p>4 Johnson & Johnson that's being reported</p> <p>5 in Exhibit 9, true?</p> <p>6 A. So this says EGT Extra</p> <p>7 00000, and the table says, "Processed</p> <p>8 talc Italian 1."</p> <p>9 Are -- are those the same?</p> <p>10 Q. They are. I think you will</p> <p>11 find that Italian 1 is referred to on</p> <p>12 Page 5 of this report, and it's the</p> <p>13 identification of the specific sample.</p> <p>14 A. I see.</p> <p>15 Q. Do you see that?</p> <p>16 A. I see.</p> <p>17 Q. So are we in agreement now</p> <p>18 that the samples reported as on May 9,</p> <p>19 1958, and on May 23, 1958, are samples of</p> <p>20 processed Johnson & Johnson talc?</p> <p>21 A. Could I read a little more</p> <p>22 of this report?</p> <p>23 Q. I'm just asking a simple</p> <p>24 question.</p>

<p style="text-align: right;">Page 146</p> <p>1 A. Well, I just, I just want to 2 make sure. I have seen that paragraph on 3 Page 2. I want to read the lead-up to 4 the table we just referred to on Page 5. 5 Q. Have you seen this report 6 before? 7 A. I have, yeah. I have seen a 8 lot of reports. 9 Q. Sure, I'm just asking. 10 A. Yeah, I have seen this. 11 Q. I'm not suggesting anything 12 other than I'm just asking if you have 13 seen this. 14 A. Yeah, I have seen this. 15 Q. Okay. All right. Anything 16 about what you've read so far that -- 17 that makes you doubt that this was 18 processed talc that was actually tested? 19 A. Well, again I want to see 20 what they were doing inhouse versus what 21 they acquired, just, just to be sure in 22 my mind. 23 Q. Do you think that they were 24 adding tremolite inhouse?</p>	<p style="text-align: right;">Page 148</p> <p>1 - - - 2 EXAMINATION (Cont'd.) 3 - - - 4 BY MS. O'DELL: 5 Q. Dr. Poulton, before lunch, 6 we were talking about testing that 7 Battelle had done of certain Italian talc 8 samples. And we were discussing whether 9 they were processed Italian talc, in 10 other words, there -- the samples had 11 been processed -- was -- were -- whether 12 the samples were processed powder by J&J. 13 And we looked at page, I 14 think it's 2 of the report ending Bates 15 911. It refers to the samples as being 16 EGT Extra 00000 talc from the mill at 17 Cranford, New Jersey. And you wanted to 18 take a little closer look at that report. 19 A. Yeah. 20 Q. Have you had an opportunity 21 to do that? 22 A. I did look at it. 23 Q. And are we in agreement that 24 the samples that were tested were</p>
<p style="text-align: right;">Page 147</p> <p>1 A. I don't know. I -- I 2 just -- I want to read the report. 3 Q. It could, could be. It 4 could, could be, okay. 5 A. I just want to -- 6 Q. Well, we'll take a break, 7 and if you -- you can read it over lunch, 8 and then we'll come back and I'll ask you 9 a few more questions about it. 10 A. Okay. 11 THE VIDEOGRAPHER: Off the 12 record, right? 13 MS. O'DELL: Yeah. 14 THE VIDEOGRAPHER: The -- 15 the time is 12:28 p.m. Off the 16 record. 17 - - - 18 (Lunch break.) 19 - - - 20 THE VIDEOGRAPHER: Okay. We 21 are back on the record. The time 22 is 1:29 p.m. 23 - - - 24 AFTERNOON SESSION</p>	<p style="text-align: right;">Page 149</p> <p>1 processed Johnson & Johnson talcum 2 powder? 3 A. I could not confirm that 4 from the Cranford, New Jersey, plant. 5 And I -- and I couldn't accurately map 6 Talc 1 and Talc 2 to EGT Extra. So I -- 7 I am still confused as to whether that is 8 truly a Johnson & Johnson processed talc. 9 Q. And in your mind, you don't 10 know -- strike that. 11 You don't know whether EGT 12 talc was actually the product name for 13 Italian talc? 14 A. From -- from Cranford. 15 Q. You do not know that? 16 A. I do not know that EGT Extra 17 00000 talc from Cranford is Johnson & 18 Johnson talc. I -- I don't have 19 confirmation of that. 20 Q. Are -- are you -- have you 21 seen that referred to in documents as 22 Johnson & Johnson Italian talc? 23 A. EGT Extra? 24 Q. Yeah.</p>

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1 A. I'd have to go back and look
 2 for -- for that reference.
 3 Q. And you are aware that
 4 the -- Battelle did a series of tests on
 5 Johnson & Johnson talcum powder from
 6 Italy. Are you not?
 7 MR. CHACHKES: Objection.
 8 THE WITNESS: I -- I know
 9 that Battelle did a number of
 10 tests for Johnson & Johnson
 11 involving samples from Italy.
 12 BY MS. O'DELL:
 13 Q. And, in fact, we looked at
 14 not only the May the 9th sample results
 15 that we just have reviewed the actual
 16 report which is Exhibit 9. But in the
 17 Hopkins Exhibit 28 chart, we also looked
 18 at the test results for a May 23, 1958,
 19 sample.
 20 Do you recall that?
 21 A. We have that in the table.
 22 I don't think that we've looked at J&J-2,
 23 the Battelle report for that.
 24 Q. Well -- fair -- fair enough.

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1 But the Hopkins charts
 2 refers to it as processed talc as well,
 3 correct?
 4 A. It -- it does. I would have
 5 the same questions as to what the actual
 6 origination of the sample is.
 7 Q. And you doubt that
 8 originated from Johnson & Johnson, is
 9 that your testimony?
 10 A. I have a question about
 11 that.
 12 (Document marked for
 13 identification as Exhibit
 14 Poulton-10.)
 15 BY MS. O'DELL:
 16 Q. Let me show you what I'm
 17 marking as Exhibit 10, which is a
 18 Battelle report dated October 15th, 1957.
 19 Do you see that?
 20 A. Let's see. Yes. Okay.
 21 Q. And if you look at Page 1 of
 22 the actual report which ends in Bates
 23 number ending 874.
 24 Do you see that?

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1 A. I do.
 2 Q. And if you'll look, the
 3 samples measured in this or analyzed in
 4 this report at the bottom are also
 5 referred to as EGT Extra 0000.
 6 Do you see that?
 7 A. I see that.
 8 Q. And they're taken weekly --
 9 at weekly intervals from the conveyor at
 10 the Cranford, New Jersey plant. Which is
 11 a J&J processing plant, correct?
 12 A. So I don't know that. I
 13 would want to see some documentation that
 14 that was exclusively Johnson & Johnson
 15 sourcing.
 16 Q. What do you know about the
 17 beneficiation process of Italian talc
 18 that J&J employed?
 19 A. So I believe that there was
 20 hand sorting in Italy to select the
 21 purest grades of talc. And it was
 22 shipped to the United States. At that
 23 point I actually don't know where the
 24 Italian talc was processed.

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1 Q. Okay. Let's assume for
 2 purposes of my question that the
 3 Cranford, New Jersey facility is a
 4 Johnson & Johnson facility, which I will
 5 represent to you it is, that based on
 6 this document, taken in the context of
 7 not only Exhibit 10, but also Exhibit 9,
 8 which analyzed EGT Extra 000 talc. Does
 9 it appear that that is talc that was
 10 taken from the conveyor of the processing
 11 plant there in New Jersey?
 12 A. It does say it's taken from
 13 the conveyor at that processing plant.
 14 Q. So in other words, it was
 15 processed talc?
 16 A. It looks like it.
 17 Q. In both of those samples,
 18 excuse me. In both of those samples
 19 tremolite was identified?
 20 A. So per this table, tremolite
 21 is identified from this report. I think
 22 I would look through here and see exactly
 23 what that was.
 24 Q. Let me ask you -- let me ask

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1 you this question. You gave us earlier,
 2 and I marked it as Exhibit 3, this table.
 3 A. Yes.
 4 Q. And this was the, what you
 5 called the "back of the envelope many
 6 assumptions" analysis that you conducted
 7 over the last couple of weeks?
 8 A. Yes.
 9 Q. And what was the purpose of
 10 you performing this analysis?
 11 A. I just had questions in my
 12 mind as to what the actual mining rates
 13 might have been and I wanted to do some
 14 calculations to see what they looked like
 15 and how that material flowed through the
 16 mill, how long it might take. It was
 17 actually not something that I relied on.
 18 It was just a question I had as I was
 19 reviewing documents.
 20 Q. So this is not a calculation
 21 or analysis that you relied on in
 22 reaching your opinions?
 23 A. That's correct.
 24 Q. And what was -- what were

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1 your conclusions or what were, you know,
 2 your takeaways from your analysis?
 3 A. That it was very slow
 4 production. It was not -- it confirmed
 5 that this is truly a small mine with slow
 6 production.
 7 Q. When you say small mine,
 8 what are you referring to?
 9 A. Well, I often deal with very
 10 large metal mines that produce in one
 11 truckload what Argonaut produces in a
 12 day.
 13 Q. And the data that you
 14 considered in doing this calculation was
 15 data from Argonaut?
 16 A. Yes.
 17 Q. So you criticize Dr. Cook
 18 and Dr. Krekeler for conflating
 19 non-asbestiform minerals with asbestiform
 20 minerals?
 21 A. Correct.
 22 Q. If you'll turn to Dr. Cook's
 23 report, which we previously marked, I
 24 believe -- do you have it in front of you

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1 there?
 2 A. Hang on a minute.
 3 Exhibit 5.
 4 Q. Yes.
 5 A. Okay.
 6 Q. And if you will turn to Page
 7 13 of Dr. Cook's report, the second full
 8 paragraph right before the table.
 9 Do you see that?
 10 A. The paragraph that starts,
 11 "The testing results --
 12 Q. That's right?
 13 A. -- "appearing in Table 17"?
 14 Q. Yes. And in that sentence
 15 it says, "The testing results appearing
 16 in table" -- "in the table below are some
 17 of the reported instances within
 18 defendant's internal documents where
 19 serpentine asbestos, chrysotile,
 20 amphibole asbestos or potentially
 21 asbestiform amphiboles have been found in
 22 samples of talc used to source J&J talcum
 23 powder products."
 24 Did I read that correctly?

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1 A. That's what it says.
 2 Q. The sentence makes clear
 3 that Dr. Cook and, I believe there's a
 4 similar sentence in Dr. Krekeler's
 5 reports, are not conflating asbestiform
 6 asbestos with non-asbestiform asbestos,
 7 true?
 8 A. No. That was not my reading
 9 of their expert reports in conjunction
 10 with the full documents that I looked at
 11 for these samples.
 12 Where they're saying things
 13 are amphibole asbestos, I was not seeing
 14 reference to asbestos in test samples
 15 that were specifically labeled as ore.
 16 Q. The table is presented in
 17 terms of serpentine asbestos, amphibole
 18 asbestos, or potentially asbestiform
 19 amphiboles.
 20 Do you see that?
 21 A. Could you show me where
 22 you're looking?
 23 Q. Where I just read.
 24 A. Okay. And this table is

<p style="text-align: right;">Page 158</p> <p>1 essentially Hopkins' table?</p> <p>2 Q. It has similarities. But it</p> <p>3 is not the same.</p> <p>4 A. It is not the same. And the</p> <p>5 difference is?</p> <p>6 Q. My question to you is not a</p> <p>7 comparison of the table to the</p> <p>8 Hopkins-28. My question is in presenting</p> <p>9 this table of results, Dr. Cook</p> <p>10 acknowledges that there are internal</p> <p>11 documents that state there's serpentine</p> <p>12 asbestos or chrysotile, amphibole</p> <p>13 asbestos, or potentially asbestiform</p> <p>14 amphiboles. He is clearly not conflating</p> <p>15 the two, correctly -- correct?</p> <p>16 MR. CHACHKES: Objection.</p> <p>17 THE WITNESS: I disagree</p> <p>18 with that interpretation when I</p> <p>19 looked at these documents and how</p> <p>20 Drs. Cook and Krekeler were</p> <p>21 associating test results with</p> <p>22 their conclusion, that these were</p> <p>23 asbestiform minerals in the ore</p> <p>24 samples.</p>	<p style="text-align: right;">Page 160</p> <p>1 A. So I looked at some of the</p> <p>2 examples that they listed as being</p> <p>3 asbestos-containing samples. I looked at</p> <p>4 the cited documents and concluded that</p> <p>5 they had not correctly identified samples</p> <p>6 as containing asbestiform when the</p> <p>7 reports said those were not ore samples</p> <p>8 or they did not identify things as</p> <p>9 asbestos.</p> <p>10 Q. And your criticisms are</p> <p>11 outlined in your expert report, true?</p> <p>12 A. Yes.</p> <p>13 Q. If you'll turn to Page 7 of</p> <p>14 your report. And specifically you cite</p> <p>15 J&J 000087868, which we just marked a few</p> <p>16 moments ago as Exhibit 10.</p> <p>17 And you criticize Dr. Cook</p> <p>18 by saying that, "When tremolite was</p> <p>19 identified, the tremolite was not</p> <p>20 identified as asbestiform."</p> <p>21 Do you see that sentence in</p> <p>22 your report?</p> <p>23 A. Yes, I do.</p> <p>24 Q. And if you'll turn to Page</p>
<p style="text-align: right;">Page 159</p> <p>1 BY MS. O'DELL:</p> <p>2 Q. Did -- are there -- are your</p> <p>3 criticisms of the table reporting the</p> <p>4 results of asbestos testing fully set out</p> <p>5 in your report?</p> <p>6 A. I identified a few examples.</p> <p>7 Q. Are they fully set out in</p> <p>8 your report?</p> <p>9 A. When you say fully set out,</p> <p>10 what do you mean?</p> <p>11 Q. I'm saying if you have a</p> <p>12 criticism of the report of Dr. Cook's --</p> <p>13 strike that. Start again.</p> <p>14 Are all your criticisms of</p> <p>15 the table reporting the test results for</p> <p>16 asbestos testing contained in your</p> <p>17 report?</p> <p>18 A. I think I'm still</p> <p>19 unfortunately having trouble following</p> <p>20 your question.</p> <p>21 Q. Are all your criticisms of</p> <p>22 the table containing asbestos test</p> <p>23 results in Dr. Cook and Dr. Krekeler's</p> <p>24 reports outlined in your report?</p>	<p style="text-align: right;">Page 161</p> <p>1 21 of the report that we've marked as</p> <p>2 Exhibit 10 -- do you see that, Page 21?</p> <p>3 A. Labeled "conclusions"?</p> <p>4 Q. Yes.</p> <p>5 A. Okay.</p> <p>6 Q. Under Number 2. Battelle et</p> <p>7 al. concludes that 10 percent of the</p> <p>8 material that was examined was fibrous,</p> <p>9 correct?</p> <p>10 A. That's what it says.</p> <p>11 Fibrous is not the same as asbestos.</p> <p>12 Q. Can be asbestiform, true?</p> <p>13 A. Fibrous?</p> <p>14 Q. Yes.</p> <p>15 A. Is a broader term.</p> <p>16 Asbestiform is quite specific.</p> <p>17 Q. And asbestiform -- fibrous</p> <p>18 material includes asbestiform material,</p> <p>19 correct?</p> <p>20 A. I would not put the two in</p> <p>21 the same category.</p> <p>22 Q. But if -- if your -- in your</p> <p>23 view as fibrous is a broader category</p> <p>24 than asbestiform, asbestiform certainly</p>

<p style="text-align: right;">Page 162</p> <p>1 would be encompassed by the term 2 "fibrous"? 3 A. I wouldn't make that 4 equation because I think it confuses the 5 definition of asbestiform. I -- I would 6 say that if it's truly asbestiform, it is 7 asbestiform. And fibrous is distinct 8 from that. 9 Q. But asbestiform is fibrous 10 material. We can -- we can debate the 11 definition, we can debate some of the 12 characteristics, but asbestiform asbestos 13 is fibrous in nature, true? 14 MR. LOCKE: Objection. 15 THE WITNESS: Again, I -- I 16 would stay with a very specific 17 definition. I would not agree to 18 equate fibrous with asbestiform. 19 BY MS. O'DELL: 20 Q. I didn't -- I didn't say 21 equate. I said asbestiform is -- would 22 be encompassed in the term "fibrous." 23 A. I would not put it in that 24 set.</p>	<p style="text-align: right;">Page 164</p> <p>1 document, it's a memo from Dr. Umberto 2 Stefano. It's a 1973 memo. Do you 3 recall that? 4 A. Yes. 5 Q. And you cite it for purposes 6 of -- of stating that there are no 7 asbestiform fibers in talc from the Val 8 Chisone region, true? 9 A. Can we look at his memo? 10 Q. I'm asking you a question 11 about what you cite it for. 12 A. Well, I'm -- I'd like to see 13 what his memo says to refresh my memory. 14 Q. Who -- who is he? 15 A. I don't know if he was a 16 medical doctor for a company or a medical 17 doctor in the region. 18 (Document marked for 19 identification as Exhibit 20 Poulton-11.) 21 BY MS. O'DELL: 22 Q. Here is Exhibit 11, which 23 is -- is that the memo you're referring 24 to in your report?</p>
<p style="text-align: right;">Page 163</p> <p>1 Q. Okay. So it's -- 2 A. I would keep asbestiform 3 separate. 4 Q. It's not fibrous material? 5 A. I would keep it as a 6 separate distinction from fibrous. 7 Q. My question is, is 8 asbestiform asbestos fibrous in nature? 9 A. Again, I would stay with the 10 definition of asbestiform having very 11 specific characteristics which may not be 12 characteristic of something in a fibrous 13 set. So I would keep them separate. 14 Q. I get -- I understand what 15 you're saying, but the truth is that in 16 the context of a 1958 or '7 report, 17 fibrous -- 10 percent fibrous material 18 would include potentially asbestiform 19 material, true? 20 MR. LOCKE: Objection. 21 THE WITNESS: I don't agree 22 with that. 23 BY MS. O'DELL: 24 Q. You also go on to cite a</p>	<p style="text-align: right;">Page 165</p> <p>1 A. I believe so. 2 Q. And according to your 3 report, Dr. Stefano references a study 4 and -- of whether talc mining in the Val 5 Chisone region caused lung -- lung 6 diseases in mine and mill workers due to 7 the presence of asbestiform minerals and 8 silica. That's what you state in your 9 report, correct? 10 A. Let me just read. 11 Q. Is that the document you 12 cited, Dr. Poulton? 13 A. It is. 14 Q. And Dr. Stefano reports 15 information from conversations that he's 16 had with physicians in the Val Chisone 17 area, true? 18 A. He contacted physicians and 19 health officers in the area. 20 Q. And he -- this is not a 21 scientific study published in the 22 peer-reviewed literature, true? 23 A. As far as -- I -- I don't 24 know whether this was published or not.</p>

<p style="text-align: right;">Page 166</p> <p>1 I just have this memo. 2 Q. And this, this memo was not 3 published in a peer-reviewed literature, 4 true? 5 A. This exact memo, I don't 6 know. 7 Q. What you're holding in your 8 hand is not a peer-reviewed publication, 9 true? 10 A. That's correct. 11 Q. And there's no protocol 12 outlined in this memo, true? 13 A. True. 14 Q. There's no identification of 15 patients that were followed as a part of 16 this examination, true? 17 A. True. 18 Q. That -- you know, 19 interviewing medical doctors is not an 20 appropriate study method for determining 21 if individuals have developed lung -- 22 lung disease or silicosis as opposed to 23 exposure to an environmental material, 24 true?</p>	<p style="text-align: right;">Page 168</p> <p>1 BY MS. O'DELL: 2 Q. Let me show you what I've 3 marked as Exhibit 12. Is that the 4 article that you're referencing? 5 A. I believe so. 6 Q. And this is a -- a study 7 of -- of talc miners and millers in Italy 8 to determine if they have significant 9 excess mortality from exposure to 10 asbestiform fibers, fair? 11 A. In Val Chisone, yes. 12 Q. And -- and it -- it states 13 in the background that, top of the page, 14 talc found here is free from asbestiform 15 fibers. 16 Do you see that? 17 A. Yes. 18 Q. Is there any citation to 19 support that statement? 20 A. I would need to read through 21 the paper to see. 22 Q. Is there any citation at 23 that location to support the statement 24 that talc from Italy is free from</p>
<p style="text-align: right;">Page 167</p> <p>1 MR. CHACHKES: Objection. 2 THE WITNESS: So I am not 3 commenting on whether this is a 4 scientific study. I'm simply 5 citing that this memo exists and 6 what his conclusions were. 7 BY MS. O'DELL: 8 Q. And this memo states that 9 tremolite is the only asbestos mineral 10 found in a very small amount in this 11 talc? 12 A. That's his sentence. 13 Q. You go on to talk about 14 Coggiola. Coggiola. I'm not sure how 15 you say that. And you cite Coggiola for 16 the purpose of stating that there are no 17 asbestiform fibers in the -- in the Val 18 Chisone region -- region. 19 Do you see that in your 20 report? 21 A. I see that statement. 22 (Document marked for 23 identification as Exhibit 24 Poulton-12.)</p>	<p style="text-align: right;">Page 169</p> <p>1 asbestiform fibers? 2 A. I'd -- I'd want to go 3 through the paper and -- and look for his 4 references. 5 Q. Okay. 6 MS. O'DELL: Let's go off 7 the record. 8 THE VIDEOGRAPHER: Okay. 9 The time is 1:56 p.m. Off the 10 record. 11 (Short break.) 12 THE VIDEOGRAPHER: We are 13 back on the record. The time is 14 1:59 p.m. 15 BY MS. O'DELL: 16 Q. So, Doctor, before we went 17 off the record, I pointed you to the 18 statement in Coggiola that states, "Talc 19 found here is free from asbestiform 20 fibers." And I asked you the question, 21 is there a reference to support that 22 statement. There's certainly no footnote 23 there. 24 A. So the references are on</p>

<p style="text-align: right;">Page 170</p> <p>1 Page 64. 2 Q. Okay. 3 A. Left-hand column, first full 4 paragraph that starts, "To provide 5 further evaluation on the issue, we 6 updated the analysis of the Italian 7 cohort of talc miners and millers in Val 8 Chisone/Turin, reference Rubino et al. 9 1976, 1979, in which the talc was free 10 from asbestiform fibers, reference Verdel 11 et al. 1983; Parks 1994. 12 Q. And that's what you're 13 relying on to say that talc from Italy 14 has no asbestiform fibers? 15 MR. CHACHKES: Objection. 16 THE WITNESS: That's what 17 I'm relying on in this paper that 18 the miners and millers in their 19 study from the Val Chisone region 20 were not exposed to talc that had 21 asbestiform. 22 BY MS. O'DELL: 23 Q. Okay. And you've seen tests 24 from the Val Chisone reason -- region</p>	<p style="text-align: right;">Page 172</p> <p>1 as ore and waste them so you don't 2 produce them. And you may call it part 3 of the ore body, but it's not the ore 4 that you're mining. You're wasting it. 5 Q. And what's your methodology 6 for concluding that the reference to talc 7 ore in the Pooley report is -- is 8 incorrect? 9 MR. CHACHKES: Objection. 10 THE WITNESS: I believe he 11 had a statement in his report that 12 I referenced. 13 He mentions that, "Materials 14 being tested do not represent an 15 average collection of specimens of 16 material being produced at the 17 mine. The specimens were 18 collected with the intention of 19 sampling those areas with obvious 20 non-talc mineral inclusions. 21 BY MS. O'DELL: 22 Q. And that's your -- that's 23 your methodology? 24 A. That's his quote from his</p>
<p style="text-align: right;">Page 171</p> <p>1 that has -- of talc with asbestiform 2 fibers, true? 3 A. I don't recall seeing 4 asbestos in the talc ore that was being 5 milled. 6 Q. Okay. And so it's your view 7 that Battelle and -- and Pooley's 8 analysis that show asbestiform fibers 9 are -- are not applicable to Johnson & 10 Johnson commercial talc? 11 MR. CHACHKES: Objection. 12 THE WITNESS: I did not see 13 reference to asbestos minerals, 14 asbestiform minerals in the 15 samples that were marked as ore 16 for Johnson & Johnson. 17 BY MS. O'DELL: 18 Q. We went through a sample, if 19 you'll recall, in Dr. Pooley's report, of 20 talc ore that contained tremolite? 21 A. And I think that, again, 22 just because it says it's ore doesn't 23 mean that it's coming from an area that's 24 actually mined. So you can mark things</p>	<p style="text-align: right;">Page 173</p> <p>1 report stating what he was sampling and 2 why. 3 Q. And yet, he goes on to 4 say -- and we went through this 5 earlier -- that he also sampled talc ore 6 and we went through those results, I 7 think the record will reflect that? 8 A. And I outline in my 9 paragraph which samples were from pure 10 talc faces, a sample I.39 was from the 11 crusher, had no asbestiform minerals. 12 The sample I.41 that we talked about 13 labeled "good specimen from face 2" had 14 tremolite only as an inclusion in a 15 garnet grain. 16 Q. Let me just stop you there. 17 It had tremolite in this one. 18 MR. CHACHKES: We should let 19 the witness finish. Please don't 20 interrupt her. 21 MS. O'DELL: Excuse me. 22 MR. CHACHKES: Move to 23 strike the question. 24 MS. O'DELL: So be it.</p>

<p style="text-align: right;">Page 174</p> <p>1 That's fine.</p> <p>2 BY MS. O'DELL:</p> <p>3 Q. So let me ask you this.</p> <p>4 Rubino is -- was the initial mortality</p> <p>5 study of talc miners and millers in</p> <p>6 Italy, true?</p> <p>7 A. I do not look up that</p> <p>8 reference.</p> <p>9 Q. I'll represent to you that</p> <p>10 that's the case. And Coggiola is a</p> <p>11 follow-up study to that particular study.</p> <p>12 That is -- neither Rubino or</p> <p>13 Coggiola involved the testing of talc</p> <p>14 samples, true?</p> <p>15 MR. CHACHKES: Objection.</p> <p>16 THE WITNESS: I don't know.</p> <p>17 BY MS. O'DELL:</p> <p>18 Q. Coggiola does not involve</p> <p>19 the testing of talc samples, true, for</p> <p>20 the presence of asbestos?</p> <p>21 A. I believe he is relying on</p> <p>22 others for that information.</p> <p>23 Q. Does not involve the testing</p> <p>24 of talc samples for asbestos, true?</p>	<p style="text-align: right;">Page 176</p> <p>1 in terms -- zoning, Z-O-N-I-N-G -- is --</p> <p>2 let me just ask you before I ask and see</p> <p>3 if you agree with this statement.</p> <p>4 Do you -- do you understand</p> <p>5 the term "zoning" in the context of</p> <p>6 geologic exploration?</p> <p>7 A. I understand zoning in the</p> <p>8 context of alteration zones.</p> <p>9 Q. Do you agree that when you</p> <p>10 conduct zoning in ore deposits, what</p> <p>11 you're really doing is identifying a</p> <p>12 regular pattern or distribution of</p> <p>13 minerals or elements over a particular</p> <p>14 geographic area? Do you agree with that?</p> <p>15 A. I don't think that's</p> <p>16 phrasing I understand for zoning.</p> <p>17 Q. Have you heard the term</p> <p>18 "regional zoning"?</p> <p>19 A. Regional zoning? In the</p> <p>20 context of what exactly?</p> <p>21 Q. Of geologic exploration or</p> <p>22 evaluation.</p> <p>23 A. Can you give me an example?</p> <p>24 Q. Well, for example, the --</p>
<p style="text-align: right;">Page 175</p> <p>1 MR. CHACHKES: Objection.</p> <p>2 THE WITNESS: I believe he</p> <p>3 is not testing --</p> <p>4 BY MS. O'DELL:</p> <p>5 Q. So the answer to my question</p> <p>6 is, that is correct?</p> <p>7 MR. CHACHKES: Objection.</p> <p>8 Asked and answered.</p> <p>9 BY MS. O'DELL:</p> <p>10 Q. You may answer.</p> <p>11 A. I may answer that, okay?</p> <p>12 Can you just rephrase your question one</p> <p>13 more time for me.</p> <p>14 Q. What I'm asking you, a</p> <p>15 simple question, yes or no, is, Coggiola</p> <p>16 does not involve the testing of talc</p> <p>17 samples for the presence of asbestos,</p> <p>18 true?</p> <p>19 A. That's my understanding.</p> <p>20 Q. And do you have a copy of</p> <p>21 Verdel with you?</p> <p>22 A. I do not.</p> <p>23 Q. Let me ask you if you agree</p> <p>24 with this statement. The term "zoning"</p>	<p style="text-align: right;">Page 177</p> <p>1 when you look at the Southern Piedmont</p> <p>2 marked region, for example, there are</p> <p>3 areas of sedimentary deposits that</p> <p>4 encompass a large part of that region.</p> <p>5 Are you familiar with that?</p> <p>6 A. So you're talking about east</p> <p>7 coast geology, and that regional scale</p> <p>8 geology is really not the core focus of</p> <p>9 my report.</p> <p>10 Q. So that -- you wouldn't be</p> <p>11 qualified to comment on the geology of</p> <p>12 basically the eastern seaboard, fair?</p> <p>13 A. I would not be able to</p> <p>14 comment on the genesis of rocks on the</p> <p>15 eastern seaboard.</p> <p>16 Q. Are you familiar with the</p> <p>17 term metallogeny?</p> <p>18 A. Metallogeny.</p> <p>19 Q. Thank you. Metallogeny.</p> <p>20 A. Yes, I've heard it.</p> <p>21 Q. How would you define it?</p> <p>22 A. I would define it as</p> <p>23 distribution of formation of metals.</p> <p>24 Q. And regional -- metallogeny,</p>

<p style="text-align: right;">Page 178</p> <p>1 say it again one more time for me, if you 2 don't mind? 3 A. Metallogeny. 4 Q. Metallogeny. I'm going to 5 get it. Metallogeny is a form of 6 regional zoning, true? 7 A. I don't know that I would 8 necessarily say that. But again, you're 9 straying outside my zone of expertise 10 here, so I couldn't comment. 11 Q. Would you agree that there 12 can be broad consistency in ore deposits 13 over a geographic region? 14 A. No. And I think we would 15 again have to take this on a case-by-case 16 basis, not a general hypothetical. 17 Q. I'm entitled to ask you 18 hypotheticals. And so my question is, 19 would you agree that similarities in 20 particular types of ore deposits can 21 occur over regions? 22 A. So we would want to be 23 careful with the word "similarity" to 24 answer that question honestly.</p>	<p style="text-align: right;">Page 180</p> <p>1 Q. In terms of zoning however, 2 that's an important first step to 3 understand the details of a specific 4 deposit, true? 5 A. I think we're using zoning 6 differently from my body of knowledge of 7 how the word "zoning" would be used. So 8 I think I'm not on the same page where 9 you are with this question. 10 Q. Okay. Let me ask you to 11 look at what I'm marking as Exhibit 13. 12 (Document marked for 13 identification as Exhibit 14 Poulton-13.) 15 BY MS. O'DELL: 16 Q. It's an expert from Guilbert 17 and Park which you cite. I don't have 18 another copy. I'm sorry. You are 19 familiar with Guilbert and Park? 20 A. I am. 21 Q. You cite that in your 22 report? 23 A. I do. 24 Q. It's authoritative?</p>
<p style="text-align: right;">Page 179</p> <p>1 Q. How about consistency? 2 A. Even consistency we would 3 want to define. 4 Q. Okay. Would you agree with 5 me that economic geologists often look to 6 a particular region and the consistencies 7 in the deposits of certain types of 8 minerals in order to evaluate that area 9 for, you know, economic exploitation? 10 A. So we have models of mineral 11 deposits that may be based on, say, 12 tectonic locations. They may be based on 13 formation in a particular kind of basin 14 or in a particular time frame in the 15 Earth's evolution. 16 So that may put you in a 17 particular part of the world that is 18 relevant for that type of deposit. But 19 if it were so easy to say I have to be in 20 South America to find copper, we wouldn't 21 be exploring for copper. We would know 22 where it all is. So it only gets you so 23 close, and then the details become very 24 important.</p>	<p style="text-align: right;">Page 181</p> <p>1 A. Yes. 2 Q. And Guilbert and Park have a 3 section on regional zoning. 4 Do you see this? 5 A. Yes. 6 Q. And they write, "Economic 7 geologists have been aware that many 8 types of ore deposits seem to have broad 9 scale pattern consistencies," and they 10 talked about the defied explanation until 11 the 1970s. And then they give examples 12 of different types of deposits and the 13 bands of deposits that can occur over 14 broad geographical areas. 15 Do you see that? 16 A. Yes. 17 Q. And would you agree with me 18 that the ultramafic deposits, talc 19 deposits that are located in Vermont are 20 part of a consistent pattern of 21 ultramafic deposits that start in Canada 22 and move down the eastern seaboard 23 through western North Carolina, north 24 Georgia, Alabama, et cetera?</p>

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1 A. I wouldn't be an
2 authoritative expert on Eastern Seaboard
3 ultramafic rocks.

4 Q. Would you agree with me that
5 regional zoning, such as described in
6 Guilbert and Park is a generally accepted
7 principle in geologic exploration?

8 A. So I think that as Guilbert
9 and Park are using zoning, and -- and
10 you're referring to them, it's very
11 similar to what I said where you look at
12 tectonic locations, history. That puts
13 you in the ballpark.

14 So to the extent that that's
15 a zone, that it puts you in the ballpark,
16 then yes, it helps you narrow into an
17 area. But as you get closer and closer,
18 smaller scales, then those differences
19 become very important.

20 So zoning gets you in the
21 ballpark. Then it's important to figure
22 out which seat you are in if we use a
23 ballpark analogy.

24 Q. And you've not done that

1 "Cook states chrysotile is also
2 reported"?

3 Q. Correct.

4 A. Correct. Yes.

5 Q. And what he says is, in this
6 report is, "Chrysotile is also reported
7 in the Val Chisone mineral suite in 1971
8 by Ashton."

9 That's the quote you
10 criticize, correct?

11 A. That's the quote I
12 criticize.

13 Q. Let me ask you to look at
14 what I'm marking as Exhibit 14.

15 (Document marked for
16 identification as Exhibit
17 Poulton-14.)

18 BY MS. O'DELL:

19 Q. Exhibit 14 is a letter from
20 Bill Ashton, an employee of Johnson &
21 Johnson, to a Mr. Caneer at the Colorado
22 School of Mines.

23 It's dated 1971, correct?

24 A. Correct.

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1 examination for the eastern part of the
2 United States that contains ultramafic
3 derived talc deposits, true?

4 A. I'm not the geologic expert
5 for Eastern Seaboard ultramafic rocks.

6 Q. Including the talc deposits
7 in -- in Vermont, true?

8 A. The region of the talc
9 deposits in Vermont.

10 Q. You cite Guilbert and Park
11 as an authoritative source. But Guilbert
12 and Park does not describe ultramafic
13 talc occurrences, true?

14 A. I was not citing them in the
15 context of ultramafic talc.

16 Q. And Guilbert and Park does
17 not address talc occurrences specifically
18 in Vermont, true?

19 A. I believe that's correct.

20 Q. On Page 8 of your report you
21 criticize Dr. Cook in relation to a
22 letter that he relied on. Do you see
23 that, on the top of Page 8?

24 A. The paragraph that starts,

1 Q. And do you know who Bill
2 Ashton is?

3 A. I do not.

4 Q. Do you know what his role
5 was at Johnson & Johnson?

6 A. I do not.

7 Q. In the third paragraph from
8 the bottom, and -- well, maybe I should
9 start at the top. He says, "Dear
10 Mr. Caneer," he said, "I've shipped to
11 Bob Beers' attention one drum of Italian
12 rock from the Crosetto mine in the
13 Chisone valley of the Italian Alps."

14 Do you see that?

15 A. Yes.

16 Q. He says this is -- "That is
17 the" -- "the working from which the high
18 grade Italian talc originates," referring
19 to talc for Baby Powder.

20 Do you see that?

21 A. I don't know that it says
22 Baby Powder. It just says high grade
23 Italian talc.

24 Q. And he calls it the high

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1 grade Italian talc originates, that's
 2 what he says, right?
 3 A. The high -- the high grade
 4 Italian talc originates.
 5 Q. And he says at the bottom,
 6 "I have also checked into the
 7 mineralization of that part of the
 8 territory, and the minerals which show in
 9 the valley are talc, pyrite, magnetite,
 10 dolomite, apatite, clinocllore,
 11 chrysotile, tourmaline, tremolite,
 12 actinolite," and then he goes on.
 13 So, in fact, Dr. Cook's
 14 citation of this letter is accurate.
 15 A. I don't read that the same
 16 way. This paragraph says he's -- he's
 17 checked into mineralization of that part
 18 of the territory in the valley and it
 19 doesn't -- it doesn't relate that suite
 20 of minerals specifically back to the
 21 mine. It's simply talking about some
 22 unknown size region.
 23 Q. And -- and that's your
 24 criticism of -- of Dr. Cook's, that

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1 citation in Dr. Cook's report?
 2 A. Yes. It does not state
 3 that -- that chrysotile is in the
 4 Crosetto mine.
 5 Q. What he actually stated was,
 6 is that chrysotile is reported in the Val
 7 Chisone mineral suite, and that's -- he's
 8 referring to the valley, Val Chisone
 9 valley, correct?
 10 MR. CHACHKES: Objection.
 11 THE WITNESS: Dr. Cook is
 12 reporting to Val Chisone.
 13 This paragraph says
 14 "territory in the valley." And it
 15 doesn't -- I -- I can't infer from
 16 that that valley and territory are
 17 as specific as Val Chisone.
 18 BY MS. O'DELL:
 19 Q. He says the valley in the
 20 paragraph that Dr. Cook references. He
 21 says, "I've also checked in the
 22 minimization of that part of the
 23 territory." He doesn't stop there. And
 24 he says, "The minerals which show in the

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1 valley."
 2 And he's referring to the
 3 Val Chisone valley in this letter,
 4 correct?
 5 A. I don't know that. He's
 6 referring to Val Chisone in the first
 7 paragraph where the talc samples that
 8 he -- he has shipped have come from.
 9 This is too nonspecific for
 10 me to say that -- that he's referencing
 11 territory and valley as specifically Val
 12 Chisone.
 13 Q. And it's your -- you're
 14 testifying here under oath that valley in
 15 this letter does not refer to the Chisone
 16 Valley?
 17 A. I can't say that it does.
 18 It's -- it's too general in that
 19 paragraph.
 20 Q. And in certainly the whole
 21 context of the letter is the Val Chisone
 22 Valley, correct?
 23 A. The first paragraph that the
 24 sourcing of the material has come from

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1 the Chisone Valley. Again, I can't say
 2 in a broad paragraph that says territory
 3 and valley, what he is specifically
 4 referring to.
 5 Q. And you're -- you're opining
 6 that valley in the latter paragraph is
 7 not the Chisone Valley, correct?
 8 A. I cannot conclusively say
 9 it's Val Chisone Valley.
 10 Q. And that's your criticism of
 11 Dr. Cook's report --
 12 A. Yes, yes.
 13 Q. I think reasonable sort of
 14 minds could differ on that point.
 15 Let me ask you to look at
 16 Imerys 081025.
 17 And you state in your
 18 report, "Cook misrepresents general
 19 information on minerals associated with
 20 talc in Italy." And you cite that
 21 document.
 22 Do you see that?
 23 A. Yes.
 24 Q. Let me ask you to look at

<p style="text-align: right;">Page 190</p> <p>1 Exhibit 15. 2 (Document marked for 3 identification as Exhibit 4 Poulton-15.) 5 BY MS. O'DELL: 6 Q. And it's Bates Number 7 081025. That's the document you referred 8 to, correct? 9 A. Yes. 10 Q. And your criticism of 11 Dr. Cook is that he misrepresents general 12 information regarding Italy in citation 13 of this document? 14 A. That is my criticism. 15 Q. Isn't it true that you're in 16 error, Dr. Poulton, by referring to this 17 document in relation to Italy? 18 A. Could you explain me -- what 19 you think my error is? 20 Q. First, Dr. Cook does not 21 cite this document in his description of 22 Italian talc mines. 23 A. Oh, he does not? 24 Q. He does not. In fact, I'll</p>	<p style="text-align: right;">Page 192</p> <p>1 081025. And that's Exhibit 15. You have 2 that in front of you? 3 A. I do. 4 Q. That's what you cite? 5 A. That's what I cite. 6 Q. There's no reference in -- 7 excuse me. 8 There's no reference in that 9 document to Italy, correct? 10 A. In this document? 11 Q. Correct. Exhibit 15. 12 A. I stand corrected. There is 13 not Italy in this particular document. 14 So I've either mis-cited the document or 15 I've put it in the wrong place. 16 Q. Or you were incorrect in 17 making the statement? 18 MR. LOCKE: Objection. 19 THE WITNESS: I may be 20 incorrect in referencing this 21 document. 22 BY MS. O'DELL: 23 Q. So as stated in your report 24 on Page 8, the second paragraph from the</p>
<p style="text-align: right;">Page 191</p> <p>1 direct your attention to Page 10 of 2 Dr. Cook's report where he describes the 3 geology of Italian talc mines. And this 4 document is not included, correct? 5 A. We would want to check that 6 there isn't another number for my 7 citation. 8 Q. I mean you're the -- you -- 9 you're the one who included that number. 10 A. I did include that number. 11 And it's quite possible that if I opened 12 one of his documents that was the same 13 file, I numbered it as Imerys in my 14 document, so I would want to actually 15 confirm that there isn't some other 16 number for the Imerys document that I 17 have cited here. I don't believe I 18 pulled it out of thin air. 19 Q. I'll represent to you that 20 Imerys documents typically don't have 21 more than one number. So unlike J&J 22 documents which have been involved in 23 litigation for quite a period of time, 24 So I put before you Imerys</p>	<p style="text-align: right;">Page 193</p> <p>1 top of the page is incorrect? 2 A. This document does not cite 3 Italy, so I am incorrect in that citation 4 of the document. 5 Q. Earlier today you said that 6 asbestos could be removed from talc in 7 the beneficiation process. 8 Do you recall that? 9 A. I would have to see exactly 10 what I said, but there is the ability to 11 separate asbestos. I would have to see 12 exactly what I said this morning. 13 Q. That's all you said. 14 A. Okay. 15 Q. I'm just asking you the 16 question, is what is -- what are you 17 relying on to make the statement that as 18 asbestos can be fully removed from talc? 19 A. I don't think I said the 20 word "fully," did I? 21 Q. If you -- what process -- 22 let me just back up. 23 Can asbestos in the -- 24 present in talcum powder be completely</p>

<p style="text-align: right;">Page 194</p> <p>1 removed in the beneficiation process?</p> <p>2 A. So when you say talcum</p> <p>3 powder, do you mean talc ore?</p> <p>4 Q. You can assume it means talc</p> <p>5 ore that's being processed for purposes</p> <p>6 of bottling.</p> <p>7 A. Okay. Okay. So as long as</p> <p>8 there are physical properties differences</p> <p>9 between minerals, you have the ability to</p> <p>10 separate them based on particle size in</p> <p>11 an air classification separator.</p> <p>12 You have the possibility of</p> <p>13 different surface chemistry processes or</p> <p>14 surface chemistry properties that would</p> <p>15 allow separation and flotation with the</p> <p>16 correct reagents.</p> <p>17 You may have the</p> <p>18 possibility, even in the crushing and</p> <p>19 grinding, because amphiboles are harder</p> <p>20 than talc ore is. And the grinding mills</p> <p>21 are set up for particular hardness of</p> <p>22 minerals.</p> <p>23 So there are several stages</p> <p>24 that you can separate minerals based on</p>	<p style="text-align: right;">Page 196</p> <p>1 impact on asbestos.</p> <p>2 But I'm largely looking at</p> <p>3 when we have asbestos mixed in with other</p> <p>4 kinds of minerals.</p> <p>5 Q. Can you remove or separate</p> <p>6 asbestos from talc based on the specific</p> <p>7 physical properties of asbestos?</p> <p>8 A. There are differences in the</p> <p>9 physical properties with talc. So based</p> <p>10 on the separation and the beneficiation</p> <p>11 processes that you're using, I would say</p> <p>12 it is possible.</p> <p>13 Q. Possible, but you've not</p> <p>14 ever studied that process or been</p> <p>15 involved in that process, fair?</p> <p>16 A. I have not had personal</p> <p>17 experience.</p> <p>18 Q. You've not written on that,</p> <p>19 separation of asbestos from talc or other</p> <p>20 minerals, true?</p> <p>21 A. I have not published on</p> <p>22 that.</p> <p>23 Q. Let me ask you in Exhibit 15</p> <p>24 to turn to -- first let me, before you</p>
<p style="text-align: right;">Page 195</p> <p>1 their physical properties. And</p> <p>2 asbestiform minerals would have different</p> <p>3 physical properties than talc.</p> <p>4 Q. Okay. Have you ever</p> <p>5 designed a process for purposes of</p> <p>6 removing asbestiform minerals from talc?</p> <p>7 A. No.</p> <p>8 Q. Have you ever supervised a</p> <p>9 process that the purpose of which was to</p> <p>10 remove asbestos from talc?</p> <p>11 A. No.</p> <p>12 Q. What reported process are</p> <p>13 you -- let me strike that and start</p> <p>14 again.</p> <p>15 What peer-reviewed</p> <p>16 publication are you relying on to</p> <p>17 conclude that asbestos in talcum powder</p> <p>18 can be removed during the beneficiation</p> <p>19 process?</p> <p>20 A. So I'm relying on background</p> <p>21 knowledge of separating asbestos from</p> <p>22 other minerals. And I have looked at</p> <p>23 West Windsor document where they looked</p> <p>24 at changes of flotation reagents and its</p>	<p style="text-align: right;">Page 197</p> <p>1 turn to the page, this PowerPoint is</p> <p>2 entitled "Talc Geology Mining and</p> <p>3 Processing For Cosmetic, Pharma, and Food</p> <p>4 Applications" by E.F. McCarthy dated</p> <p>5 February 2010.</p> <p>6 You've seen this document</p> <p>7 before?</p> <p>8 A. I have.</p> <p>9 Q. And you're aware that</p> <p>10 Mr. McCarthy was a toxicologist and</p> <p>11 safety director that worked for Imerys</p> <p>12 Talc America?</p> <p>13 A. I knew he was an Imerys</p> <p>14 employee. I didn't know what his actual</p> <p>15 role was.</p> <p>16 Q. If you'll turn to page Bates</p> <p>17 number ending in 043. Mr. McCarthy has</p> <p>18 created a slide called "Talc</p> <p>19 Beneficiation," correct?</p> <p>20 A. Yes.</p> <p>21 Q. And he's -- in the second</p> <p>22 bullet, he's talking about rejection of</p> <p>23 fibrous minerals.</p> <p>24 Do you see that?</p>

<p style="text-align: right;">Page 198</p> <p>1 A. Yes.</p> <p>2 Q. And he says, and he's</p> <p>3 referring to fibrous minerals, "Can be</p> <p>4 selectively rejected and levels reduced</p> <p>5 by flotation and manual sorting, but they</p> <p>6 cannot be eliminated to meet cosmetic</p> <p>7 standards."</p> <p>8 Did I read that correctly?</p> <p>9 A. That's what his bullet says.</p> <p>10 Q. If you'll look at Dr. Cook's</p> <p>11 report, Page 11. He's talking about --</p> <p>12 I'll give you a moment to get there, Page</p> <p>13 11 of Dr. Cook's report. In the second</p> <p>14 paragraph, he does a literature review</p> <p>15 for Vermont talc occurrences.</p> <p>16 Do you see that?</p> <p>17 A. Yes.</p> <p>18 Q. And he is describing the</p> <p>19 geology of the counties that surround the</p> <p>20 mines that were used to source Johnson &</p> <p>21 Johnson's Baby Powder, true?</p> <p>22 A. I don't actually know where</p> <p>23 these mines are located geographically</p> <p>24 relative to the Johnson & Johnson mines.</p>	<p style="text-align: right;">Page 200</p> <p>1 Johnson mine was owned by Johnson &</p> <p>2 Johnson -- a Johnson & Johnson</p> <p>3 subsidiaries, are you not?</p> <p>4 MR. CHACHKES: Objection.</p> <p>5 THE WITNESS: I would have</p> <p>6 to look back at the documents of</p> <p>7 who owned what and when.</p> <p>8 BY MS. O'DELL:</p> <p>9 Q. Do you know that as you're</p> <p>10 sitting here?</p> <p>11 A. I don't know that off the</p> <p>12 top of my head.</p> <p>13 (Document marked for</p> <p>14 identification as Exhibit</p> <p>15 Poulton-16.)</p> <p>16 BY MS. O'DELL:</p> <p>17 Q. Let me show you what I'm</p> <p>18 going to mark as Exhibit 16. Have you</p> <p>19 seen this document before?</p> <p>20 A. This does not look familiar.</p> <p>21 I would have to check my list to see if</p> <p>22 it's one that I had.</p> <p>23 Q. If you'll turn to the second</p> <p>24 page of the document. I think you're</p>
<p style="text-align: right;">Page 199</p> <p>1 Q. Okay. And you don't know</p> <p>2 the counties where the Johnson & Johnson</p> <p>3 source mines were located, true?</p> <p>4 A. That's correct.</p> <p>5 Q. And you state in your report</p> <p>6 that the Johnson mine was never used to</p> <p>7 source Baby Powder in your report?</p> <p>8 A. That's my understanding.</p> <p>9 Q. How did you get that</p> <p>10 understanding?</p> <p>11 A. I believe I looked at the</p> <p>12 reports where the mines were cited that</p> <p>13 were producing Johnson & Johnson Baby</p> <p>14 Powder. I don't recall seeing Johnson</p> <p>15 mine on that list.</p> <p>16 Q. What reports were you</p> <p>17 referring to?</p> <p>18 A. Many reports.</p> <p>19 Q. Are you referring to an</p> <p>20 expert report, or some other type of</p> <p>21 report?</p> <p>22 A. No, I'm referring to</p> <p>23 documents that were produced.</p> <p>24 Q. You are aware that the</p>	<p style="text-align: right;">Page 201</p> <p>1 already there.</p> <p>2 Do you see at the top, this</p> <p>3 is Eastern Magnesia Talc Inc., a Johnson</p> <p>4 & Johnson company?</p> <p>5 Do you see that?</p> <p>6 A. I see that.</p> <p>7 Q. And it's a memo entitled</p> <p>8 "The Cosmetics Industry."</p> <p>9 Do you see that?</p> <p>10 A. Yes.</p> <p>11 Q. And it goes through today's</p> <p>12 market. And then talks about, in</p> <p>13 Subsection B, perfumed Baby Powder.</p> <p>14 Do you see that?</p> <p>15 A. I'm struggling to find where</p> <p>16 you see perfumed Baby Powder here. Oh,</p> <p>17 B?</p> <p>18 Q. Yes.</p> <p>19 A. Okay.</p> <p>20 Q. And if you look down to D it</p> <p>21 talks about EMTals for cosmetic.</p> <p>22 Do you see that?</p> <p>23 A. I do.</p> <p>24 Q. He's talking about cosmetic</p>

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1 talc powder.
 2 Do you see that? EMTals for
 3 cosmetics?
 4 A. And what is an EMTal?
 5 Q. It is a reference to
 6 cosmetic powder produced by Eastern
 7 Magnesia Talc Company.
 8 Do you see that?
 9 A. I see. So we're looking at
 10 the column under D, EMTals?
 11 Q. Actually, I'm looking at the
 12 title. Says "EMTals For Cosmetics."
 13 A. Cosmetics.
 14 Q. Do you see that?
 15 A. I see that.
 16 Q. I'll represent to you that
 17 is a reference to cosmetic talc?
 18 MR. LOCKE: Objection.
 19 MR. CHACHKES: Objection.
 20 THE WITNESS: So I -- I see
 21 Grade 66 which is what I recognize
 22 as Johnson & Johnson's talc grade
 23 from Vermont. And that's
 24 referenced for West Windsor.

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1 BY MS. O'DELL:
 2 Q. Right.
 3 A. I do not see that same grade
 4 referenced for Johnson.
 5 Q. And at different mines, in
 6 other words, Italy had a different
 7 product reference for the talc that was
 8 used for Johnson's Baby Powder than --
 9 with reference for mine talc, correct?
 10 MR. CHACHKES: Objection.
 11 THE WITNESS: So Italy had
 12 its own number?
 13 BY MS. O'DELL:
 14 Q. Product code.
 15 A. Product code.
 16 Q. And it was a different
 17 product code in the West Windsor group of
 18 mines, correct?
 19 A. So I've only seen 66
 20 referenced for approved Johnson & Johnson
 21 talc.
 22 Q. Right.
 23 A. I've never seen another
 24 number in any document associated with

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1 Johnson & Johnson cosmetic talc products.
 2 Q. Well, you are aware that
 3 Italy had a different product number for
 4 talc used in Johnson's Baby Powder and
 5 Shower to Shower, true?
 6 A. Yes.
 7 Q. And you're -- are you aware
 8 that China had a different product code
 9 for the talcum powder that was used in --
 10 is still being used for Johnson's Baby
 11 Powder?
 12 A. Yes.
 13 Q. Okay. And so turn to Page 3
 14 of this document. Do you see at the
 15 bottom, Dr. Poulton, EMTCO which is
 16 Eastern Magnesia Talc Company.
 17 Do you see that? "Working
 18 to replace Johnson EMTals," which we've
 19 established was cosmetic talc?
 20 A. Okay.
 21 MR. LOCKE: Objection.
 22 MR. CHACHKES: Objection.
 23 BY MS. O'DELL:
 24 Q. "With West Windsor EMTals

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1 when and if Johnson cosmetic grades are
 2 eliminated due to arsenic content."
 3 Do you see that?
 4 A. I'm sorry, I'm just catching
 5 up with where you are now.
 6 You are on page?
 7 Q. I'm on Page 3, at the
 8 bottom.
 9 A. Okay.
 10 Q. Number 5, under 3, do you
 11 see that?
 12 Are you with me?
 13 A. Yes, I see that statement.
 14 Q. "EMTCO," which is Eastern
 15 Magnesia Talc Company, "working to
 16 replace Johnson EMTals," which we've just
 17 reviewed, "or cosmetic talc" --
 18 MR. LOCKE: Objection.
 19 BY MS. O'DELL:
 20 Q. -- "with West Windsor EMTals
 21 when and if Johnson cosmetic grades are
 22 eliminated due to arsenic content."
 23 Do you see that?
 24 MR. CHACHKES: Objection.

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<p>1 THE WITNESS: I see that 2 statement. I still stand by my 3 statement that I've never seen 4 anything but Grade 66 referenced 5 for Johnson & Johnson cosmetic 6 talc. 7 BY MS. O'DELL: 8 Q. And you've only seen in 9 review of -- for your report, the 10 references cited by Dr. Cook and 11 Dr. Krekeler, plus six to 12 other 12 documents, true? 13 A. That I asked for, yes. 14 Q. And are you aware that there 15 are thousands and thousands of other 16 documents that have been produced in this 17 litigation, including the one that's been 18 marked as Exhibit 16? 19 A. I have heard from other 20 depositions that there are many 21 documents. 22 Q. What depositions are you 23 referring to? 24 A. Dr. Cook's and</p>	<p>1 that that's what this memo states 2 without looking at larger context. 3 BY MS. O'DELL: 4 Q. The words of this memo says, 5 "We're working to replace Johnson EMTals 6 with West Windsor EMTals when and if 7 Johnson cosmetic grades are eliminated 8 due to arsenic content." 9 That's what the document 10 says. 11 A. That's what this says. But 12 again, I believe there's probably a 13 larger context. 14 MS. O'DELL: Move to strike. 15 You're speculating. 16 BY MS. O'DELL: 17 Q. You don't know that, do you? 18 MR. CHACHKES: Objection. 19 THE WITNESS: Based on the 20 documents I've seen, I would stand 21 by that statement. 22 BY MS. O'DELL: 23 Q. And it's your statement that 24 only Grade 66 was -- has ever been used</p>
Page 207	Page 209
<p>1 Dr. Krekeler's. 2 Q. And in regard to Exhibit 16, 3 the clear import is that Johnson EMTals 4 are being used, or Johnson's cosmetic 5 talc is being used for cosmetic purposes 6 according to this memo? 7 MR. CHACHKES: Objection. 8 THE WITNESS: So I would 9 imagine there are other documents 10 that could corroborate that. But 11 again, I stand by the only thing I 12 have seen is Grade 66 associated 13 with Johnson & Johnson cosmetic 14 grade talc. 15 So seeing this document out 16 of context, I can't agree that the 17 Johnson mine was used as a 18 commercial source for Johnson & 19 Johnson cosmetic products. 20 BY MS. O'DELL: 21 Q. But it's clearly what this 22 memo states. 23 MR. CHACHKES: Objection. 24 THE WITNESS: I don't know</p>	<p>1 to make Johnson's Baby Powder? 2 MR. CHACHKES: Objection. 3 THE WITNESS: That's the 4 only reference I have seen. 5 BY MS. O'DELL: 6 Q. Okay. 7 You cited on Page 8 of your 8 report Guilbert and Park, Page 66 and 67. 9 And you say, "Guilbert and Park note the 10 role of stress in changing the 11 distribution of mineralization in mineral 12 deposits and how the permeability and 13 porosity created by fractures and joints 14 at the large scale and crystal boundaries 15 and cleavage planes at the small scale 16 contribute to both the final 17 configuration of ore deposit components." 18 Citing Page 66 and 67. 19 A. Correct. 20 Q. Page 66 and 67 of Guilbert 21 and Park deal with migration of 22 hydrothermal fluids at shallow depth, 23 true? 24 A. I would need to see the</p>

<p style="text-align: right;">Page 210</p> <p>1 reference again to ensure that.</p> <p>2 MR. CHACHKES: Do you have</p> <p>3 another copy?</p> <p>4 MS. O'DELL: Sure.</p> <p>5 It's your copy.</p> <p>6 MR. FROST: It's -- it's one</p> <p>7 of the books. We can get another</p> <p>8 one if you want it.</p> <p>9 MR. CHACHKES: That's fine.</p> <p>10 THE WITNESS: Yes.</p> <p>11 BY MS. O'DELL:</p> <p>12 Q. And that does not relate to</p> <p>13 talc deposits in Vermont, correct?</p> <p>14 A. It could.</p> <p>15 Q. Does it reference -- excuse</p> <p>16 me. It doesn't reference talc</p> <p>17 occurrences in Vermont, true?</p> <p>18 A. That's a more general</p> <p>19 quotation from a more general section of</p> <p>20 that book, not specifically referenced in</p> <p>21 my report or the book for Vermont talc.</p> <p>22 Q. Or talc in general?</p> <p>23 A. Or talc in general.</p> <p>24 MS. O'DELL: I'm just going</p>	<p style="text-align: right;">Page 212</p> <p>1 A. Some are books. Some are</p> <p>2 papers.</p> <p>3 Q. And -- fair enough.</p> <p>4 MS. O'DELL: We can take a</p> <p>5 break.</p> <p>6 THE VIDEOGRAPHER: Remove</p> <p>7 your microphones. The time is</p> <p>8 2:51 p.m. Off the record.</p> <p>9 (Short break.)</p> <p>10 THE VIDEOGRAPHER: Okay. We</p> <p>11 are back on the record. The time</p> <p>12 is 4:16 p.m. -- I mean 3:16 p.m.</p> <p>13 Sorry.</p> <p>14 BY MS. O'DELL:</p> <p>15 Q. Dr. Poulton, let me ask you</p> <p>16 to look at Page 11 of your report.</p> <p>17 A. Page 11 of my report. Okay.</p> <p>18 Q. And you state that Dr. Cook</p> <p>19 misrepresents the arsenic content of talc</p> <p>20 ore for cosmetic applications.</p> <p>21 And your criticism, at least</p> <p>22 in part, is that he cites a 2006 test</p> <p>23 report.</p> <p>24 Do you see that?</p>
<p style="text-align: right;">Page 211</p> <p>1 to go ahead and mark the binder</p> <p>2 that's been provided as</p> <p>3 Exhibit 17.</p> <p>4 MR. CHACHKES: Okay. We've</p> <p>5 been going an hour and 20 minutes.</p> <p>6 Maybe take a break at some point?</p> <p>7 MS. O'DELL: Yeah, that's</p> <p>8 fine.</p> <p>9 BY MS. O'DELL:</p> <p>10 Q. Let me just identify this</p> <p>11 for the record and we can take a break.</p> <p>12 (Document marked for</p> <p>13 identification as Exhibit</p> <p>14 Poulton-17.)</p> <p>15 BY MS. O'DELL:</p> <p>16 Q. So Exhibit 17 are the</p> <p>17 excerpts of the -- let me just strike</p> <p>18 that.</p> <p>19 What is Exhibit 17?</p> <p>20 A. Exhibit 17 is additional</p> <p>21 references that I cited.</p> <p>22 Q. And those are excerpts from</p> <p>23 certain books that you have listed on</p> <p>24 your reference list, correct?</p>	<p style="text-align: right;">Page 213</p> <p>1 A. Yes.</p> <p>2 Q. Is it -- is it your opinion</p> <p>3 that the talc mines in Vermont did not</p> <p>4 have high levels of arsenic?</p> <p>5 A. The test results I've seen</p> <p>6 indicated that there is arsenic. It was</p> <p>7 something that they were managing. Some</p> <p>8 zones of the mine had fractures that were</p> <p>9 coated with arsenic-bearing minerals that</p> <p>10 they identified. Other areas of the mine</p> <p>11 did not have those zones of arsenic.</p> <p>12 That's my understanding.</p> <p>13 Q. And the documents also say</p> <p>14 that material that was in silos and</p> <p>15 weathered could also have higher levels</p> <p>16 of arsenic. I'm sure you saw those</p> <p>17 documents?</p> <p>18 A. I didn't see any reference</p> <p>19 to material that was processed into</p> <p>20 silos. I saw that if it was blasted on</p> <p>21 benches, that they suspected arsenic had</p> <p>22 weathered and they were watching their</p> <p>23 stock piles. That's the information I</p> <p>24 remember.</p>

<p style="text-align: right;">Page 214</p> <p>1 Q. So would the limit of your 2 criticism be that Dr. Cook cited in part 3 for his opinion that some of the talc ore 4 had high levels of arsenic, that he cited 5 a 2006 report?</p> <p>6 MR. CHACHKES: Objection.</p> <p>7 THE WITNESS: That is one of 8 the criticisms that I make here.</p> <p>9 BY MS. O'DELL:</p> <p>10 Q. But you're not stating that 11 the ore in the 12 Argonaut/Hamm/Hammondsville mine did not 13 have a high level of arsenic in parts? 14 That's not your criticism?</p> <p>15 A. So I agree that there are 16 zones where they've identified higher 17 arsenic that they were managing.</p> <p>18 Q. The arsenic problem in the 19 Vermont mines was an ongoing problem 20 throughout the time that talc was being 21 mined for purposes of cosmetic powders, 22 true?</p> <p>23 A. So you say it was an ongoing 24 problem?</p>	<p style="text-align: right;">Page 216</p> <p>1 A. Could we look at his report 2 specifically in that section?</p> <p>3 Q. Do you disagree with that 4 statement?</p> <p>5 A. I would want to see the 6 statement.</p> <p>7 Q. Let me ask you, do you 8 disagree with the statement that in 9 certain areas of the Vermont talc mines 10 there were high levels of arsenic?</p> <p>11 A. So I think we would want to 12 talk about specific mines sourced for 13 Johnson & Johnson talc and what the 14 specific levels of arsenic are instead of 15 saying simply high levels in all Vermont 16 mines.</p> <p>17 Q. Okay. Let me show you what 18 I'm going to mark as Exhibit Number 18 19 for this deposition.</p> <p>20 (Document marked for 21 identification as Exhibit 22 Poulton-18.)</p> <p>23 BY MS. O'DELL:</p> <p>24 Q. Have you seen this document</p>
<p style="text-align: right;">Page 215</p> <p>1 Q. Correct.</p> <p>2 A. Throughout the history of 3 using Vermont talc?</p> <p>4 Q. Correct.</p> <p>5 A. I think I would want to look 6 very specifically at arsenic test results 7 at different time periods.</p> <p>8 Q. Certainly in '92 it was 9 reported as a problem in talc deposits in 10 Vermont, true?</p> <p>11 A. Oh, I would need to see a 12 reference.</p> <p>13 Q. Do you recall that?</p> <p>14 A. I don't recall the specific 15 documents or date.</p> <p>16 Q. And -- and I guess the 17 question I have is in relation to 18 Dr. Cook's report, and what he 19 specifically opines on, he states that in 20 certain areas of the Vermont talc mines, 21 there was a high level of arsenic. 22 That's sort of the summary of his 23 opinion.</p> <p>24 Do you disagree with that?</p>	<p style="text-align: right;">Page 217</p> <p>1 before?</p> <p>2 A. I believe I have.</p> <p>3 MR. CHACHKES: Just for the 4 record, it's also Downey-12, 5 right?</p> <p>6 MS. O'DELL: I covered that 7 up on her copy.</p> <p>8 MR. CHACHKES: Right. I'm 9 just making a record.</p> <p>10 MS. O'DELL: It won't matter 11 because it's covered up. But it 12 was Downey-12.</p> <p>13 MR. CHACHKES: Just to 14 cross-reference once we get the 15 transcript in.</p> <p>16 MS. O'DELL: I see. Fair 17 enough.</p> <p>18 BY MS. O'DELL:</p> <p>19 Q. And Exhibit 18, have you 20 seen this before?</p> <p>21 A. I believe I have.</p> <p>22 Q. In this 1992 memo from R.C. 23 Munro discusses arsenic that is present 24 in Cyprus talc deposits that are used to</p>

<p>Page 218</p> <p>1 source J&J talc, true?</p> <p>2 A. I see reference to Rainbow.</p> <p>3 So I would first want to know if Rainbow</p> <p>4 was a source for Johnson & Johnson talc</p> <p>5 at this particular date.</p> <p>6 Q. West Windsor was the</p> <p>7 processing plant for cosmetic talcs,</p> <p>8 true?</p> <p>9 A. True.</p> <p>10 Q. And if you look down in the</p> <p>11 page -- first page, third paragraph, it</p> <p>12 says, "High, e.g., six parts per million</p> <p>13 arsenic" -- "soluble arsenic contents of</p> <p>14 mill feed through the West Windsor mill</p> <p>15 contribute to reduced recoveries and</p> <p>16 milling rates."</p> <p>17 Do you see that?</p> <p>18 A. I see that sentence.</p> <p>19 Q. At West Windsor part of the</p> <p>20 mill recovery problem, at least as been</p> <p>21 ascribed to a high fines content in the</p> <p>22 feed and to low pH both of which</p> <p>23 contribute to increased soluble arsenic?</p> <p>24 A. Yes.</p>	<p>Page 220</p> <p>1 then see if the certificates of</p> <p>2 acceptance were created for those samples</p> <p>3 or if they were rejected.</p> <p>4 Q. Have you seen arsenic test</p> <p>5 results of product or processed talc?</p> <p>6 A. I would have to go back and</p> <p>7 look at data to refresh my memory</p> <p>8 specifically on arsenic.</p> <p>9 Q. But you -- as you're sitting</p> <p>10 here today, you cannot identify --</p> <p>11 A. I cannot name specific</p> <p>12 samples.</p> <p>13 Q. And you don't recall at this</p> <p>14 point seeing test results for specific</p> <p>15 samples, fair?</p> <p>16 A. I would have to refresh my</p> <p>17 memory if I saw them in a table or</p> <p>18 document.</p> <p>19 Q. But you don't recall as you</p> <p>20 sit here today?</p> <p>21 A. As I sit here right now</p> <p>22 without the documents in front of me, I</p> <p>23 don't recall.</p> <p>24 Q. Let me show you what I've</p>
<p>Page 219</p> <p>1 Q. And so Munro is reporting</p> <p>2 high levels of arsenic at the West</p> <p>3 Windsor feed, correct?</p> <p>4 A. At West Windsor. West</p> <p>5 Windsor also produced industrial talc, is</p> <p>6 my understanding.</p> <p>7 Q. What's the basis for that</p> <p>8 understanding?</p> <p>9 A. I have seen some reports</p> <p>10 that indicated material that wasn't</p> <p>11 within spec for Johnson & Johnson Grade</p> <p>12 66 was sold to industrial buyers for</p> <p>13 other applications. And if memory serves</p> <p>14 me, the number of silos at West Windsor,</p> <p>15 the ones for Grade 66 are specifically</p> <p>16 marked for Grade 66. And there are</p> <p>17 others that are not marked for Grade 66,</p> <p>18 presumably because they don't hold Grade</p> <p>19 66 talc.</p> <p>20 Q. Are you testifying that ore</p> <p>21 used in Baby Powder did not test high for</p> <p>22 arsenic?</p> <p>23 A. I think we again would have</p> <p>24 to look at individual test samples and</p>	<p>Page 221</p> <p>1 marked as Exhibit 19.</p> <p>2 (Document marked for</p> <p>3 identification as Exhibit</p> <p>4 Poulton-19.)</p> <p>5 BY MS. O'DELL:</p> <p>6 Q. Have you seen this before?</p> <p>7 A. I believe so.</p> <p>8 Q. And this is a memo from</p> <p>9 Mr. McCarthy, Ed McCarthy dated 2006.</p> <p>10 If you'll turn to Page 4 of</p> <p>11 the document there's a section entitled</p> <p>12 "Vermont."</p> <p>13 Do you see that?</p> <p>14 A. Yes.</p> <p>15 Q. It says, "The Vermont</p> <p>16 operation consists of the Argonaut mine."</p> <p>17 Do you see that?</p> <p>18 A. Yes.</p> <p>19 Q. And if you'll look down two</p> <p>20 more paragraphs, the paragraph beginning</p> <p>21 "The mine."</p> <p>22 Do you see that?</p> <p>23 A. Yes.</p> <p>24 Q. Argonaut was one of the</p>

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1 mines that sourced Johnson's Baby Powder,
2 true?

3 A. True.

4 Q. It says, "The mine has a
5 poor" -- "a history of poor operation,
6 primarily due to management shortcomings,
7 inadequate stripping, poor productivity,
8 ore variability, arsenic and serpentine
9 contamination, and water management have
10 all been issues in recent years."

11 Do you see that?

12 A. I see that.

13 Q. "And because of this, it has
14 been difficult to upgrade the product
15 line."

16 Do you see that?

17 A. Yes.

18 Q. According to Mr. McCarthy,
19 arsenic contamination had been an issue
20 for some period of years, correct?

21 A. I don't know what his time
22 frame is for history.

23 Q. But he says in recent years.

24 A. Let's see. Where -- could

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1 you refresh my memory on where it says
2 recent years?

3 Q. The paragraph we were just
4 reading from: "The mine has a history."

5 Do you see that?

6 A. Has a history...

7 Oh I see. Okay.

8 Q. So arsenic contamination had
9 been a problem for some years, true?

10 A. So --

11 Q. That's what the document
12 says, correct?

13 A. In recent years --

14 Q. That's what the document
15 says, correct?

16 A. It says recent years.

17 Q. All right. Let me ask you
18 to turn in your report to Page 12. And
19 you're referring to a trip that
20 exploration -- exploratory trip that was
21 undertaken by David Crouse and others to
22 explore potential new mines to source
23 Baby Powder.

24 Do you see that?

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1 A. I see that paragraph.

2 Q. And you assert that the --

3 Dr. Krekeler's criticism of the sampling
4 that was done on that trip, if you
5 recall, their -- they visited four mines
6 and they took eight samples.

7 Do you recall that?

8 A. Yes.

9 Q. And -- and Dr. Krekeler
10 criticized that sampling process as being
11 inadequate to evaluate the mines for
12 purposes of determining if they were
13 appropriate sources of -- for Baby Powder
14 or cosmetic powder?

15 A. I believe that was his
16 conclusion.

17 Q. And it's your opinion that
18 eight samples is a sufficient number in
19 order to adequately evaluate four
20 cosmetic mines, is that your opinion?

21 A. So we need to be very
22 careful about the word evaluate.

23 Q. How do you use evaluate?

24 A. So you can use evaluate to

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1 look at business opportunities, and that
2 is, I believe, what Mr. Crouse stated was
3 the purpose.

4 He was looking specifically
5 for potential prospect areas. The report
6 is a summary of that trip with
7 recommendations and opportunities
8 identified. And in that report he talked
9 about potential joint ventures with
10 Chinese state-owned companies. So he was
11 there looking at business opportunities
12 and not conducting an exploration
13 program.

14 Q. And Dr. Crouse is -- is a
15 geologist, true, or Mr. Crouse is a
16 geologist, true?

17 A. I don't know what his -- his
18 background is.

19 Q. Do you know his role at
20 Imerys?

21 A. I do not.

22 Q. Do you know whether any
23 further sampling was done to evaluate the
24 geology of those mines?

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1 A. I do not know what was
 2 conducted after his field trip.
 3 Q. It'd be fair to say that
 4 eight samples of four mines is not a
 5 representative number of samples to
 6 evaluate the geology of those mines,
 7 true?
 8 A. He was not there to sample
 9 the geology. He was there to look at
 10 potential business opportunities, is my
 11 understanding of his field trip report.
 12 Q. Certainly evaluating a
 13 potential mine to source a product would
 14 involve evaluating the geology of the
 15 particular deposit, true?
 16 A. Not necessarily at this
 17 stage.
 18 Q. Okay. So you think he was
 19 sightseeing in China at various mines and
 20 didn't care what was -- what the geology
 21 was?
 22 MR. CHACHKES: Objection.
 23 MR. LOCKE: Objection.
 24 THE WITNESS: I -- I --

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1 BY MS. O'DELL:
 2 Q. Is that your opinion?
 3 A. I can't say that he was
 4 there to sightsee. I can say that when
 5 you go evaluate potential business
 6 opportunities, you may collect a sample
 7 just to show, say, what a typical piece
 8 of high grade ore would look like or some
 9 other interesting sample. But you're not
 10 there to conduct an exploration program.
 11 You're there to -- to get a
 12 sense of what the business environment
 13 looks like and what the -- what the state
 14 of the businesses are and what the
 15 potential resources might be that you
 16 would investigate later.
 17 Q. Imerys was already
 18 purchasing talc from China at this time
 19 that this trip was undertaken, true?
 20 A. I would need to again look
 21 at what date he did this trip to refresh
 22 my memory.
 23 Q. When did Imerys start
 24 selling talc from China to source Baby

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1 Powder?
 2 A. So I believe Rio Tinto was
 3 doing that before Imerys bought those
 4 operations. So we'd need to look at when
 5 Rio Tinto was doing work and -- and when
 6 it was Imerys.
 7 Q. For purposes of our
 8 discussion, there were predecessor
 9 companies to Imerys. I'm going to refer
 10 to them globally as Imerys.
 11 A. Okay.
 12 Q. Do you know when Imerys
 13 began to source cosmetic talc for Baby
 14 Powder?
 15 A. I believe it was around
 16 2003.
 17 Q. And the trip that you refer
 18 to that Mr. Crouse took was in 2004,
 19 correct?
 20 A. I would want to look at that
 21 document just to confirm the date.
 22 Q. Let me ask you, have you
 23 been hired or consulted with any mining
 24 companies for purposes of leading a trip

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1 to explore potential mines --
 2 MS. O'DELL: Just leave it
 3 right there.
 4 BY MS. O'DELL:
 5 Q. -- of any type in any
 6 region?
 7 Have you ever been hired by
 8 a company to lead an exploratory trip to
 9 evaluate potential mines?
 10 A. Hired by a company to lead a
 11 trip to evaluate exploration prospects?
 12 Not hired by a company.
 13 Q. And -- and you have not
 14 consulted or been hired by a company to
 15 participate in an evaluation trip like
 16 the one we are talking about involving
 17 Dr. Crouse, true?
 18 A. Could you restate your
 19 question for me again?
 20 Q. Have you ever been hired to
 21 consult for -- by a mining company for
 22 purposes of exploring potential
 23 sources of -- potential sources for a
 24 mineral?

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1 A. So those projects were
 2 funded through the university to do the
 3 projects for the companies?
 4 Q. I'm asking if you've been
 5 hired by a company, not what you've done
 6 in relation to the university.
 7 A. Outside of the university,
 8 no.
 9 Q. Let me ask you to turn --
 10 look at the bottom of Page 12 of your
 11 report. And then onto Page 13, you state
 12 that "Imerys 139093 states that the
 13 applicable testing protocols surpasses
 14 industry standards."
 15 Do you see that?
 16 A. Help me find that.
 17 Q. Page 13 of your report.
 18 A. Okay. I see the statement.
 19 Q. And you say that Imerys
 20 conducted biweekly testing of the talc
 21 using Test Method 7024.
 22 Do you see that?
 23 A. Yes.
 24 Q. And that they test weekly

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1 composites of CT -- using the CTFA J4-1
 2 method.
 3 Do you see that?
 4 A. Yes.
 5 Q. So biweekly -- is it your
 6 position that Imerys and J&J conducted
 7 testing -- testing for purposes of
 8 identifying asbestos either weekly or
 9 biweekly?
 10 A. I would have to look at
 11 which samples were specifically for
 12 asbestos because not all of the tests
 13 were specifically for asbestos as I
 14 understand it.
 15 Q. What -- what is Test
 16 Method 7024?
 17 A. I believe the TM is -- is
 18 transition microscopy. But again I'd
 19 want to confirm that.
 20 Q. Do -- do you -- do you know
 21 what TM 7024 was designed to identify?
 22 A. No. The -- the microscopy
 23 testing is -- is not my area of
 24 expertise.

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1 Q. And is it -- is your opinion
 2 or criticism of Dr. Cook and Krekeler
 3 based on your understanding that testing
 4 was -- for asbestos was conducted
 5 biweekly or weekly?
 6 MR. CHACHKES: Objection.
 7 THE WITNESS: Again, I would
 8 want to go back and just confirm
 9 with my memory when the asbestos
 10 testing was done on what
 11 composites that were collected at
 12 which times.
 13 BY MS. O'DELL:
 14 Q. Is -- was it done biweekly?
 15 A. Again, I'd want to go back
 16 and look at that document with their
 17 sampling protocols.
 18 Q. But, you don't know as
 19 you're sitting here today?
 20 A. I would need to refresh my
 21 memory.
 22 (Document marked for
 23 identification as Exhibit
 24 Poulton-20.)

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1 BY MS. O'DELL:
 2 Q. Let me show you what I'm
 3 marking as Exhibit 20. Have you seen
 4 that document before?
 5 A. It looks familiar.
 6 Q. But you don't recall having
 7 seen that as you sit here today?
 8 A. It's not foremost in my
 9 brain.
 10 Q. Okay. And it's your
 11 understanding that testing for asbestos
 12 was done on a weekly or biweekly basis?
 13 A. I don't know that the
 14 testing with the TEM was done on that
 15 basis, but samples were collected on some
 16 fixed schedule that were composited and
 17 used for the asbestos testing.
 18 Q. And in fact, talc for use in
 19 Baby Powder was not tested on a weekly or
 20 biweekly basis for asbestos, true?
 21 MR. CHACHKES: Objection.
 22 THE WITNESS: Again, I would
 23 want to go back and look at that
 24 testing schedule.

<p style="text-align: right;">Page 234</p> <p>1 (Document marked for 2 identification as Exhibit 3 Poulton-21.) 4 BY MS. O'DELL: 5 Q. Let me show you what I'm 6 marking as Exhibit 21. You'll see this 7 is the deposition of -- the front page of 8 the deposition of Julie Pier. 9 Do you see that? 10 A. Yes. 11 Q. And I'll represent to you 12 that Ms. Pier was the head of testing for 13 Imerys, and she testified as a corporate 14 representative for testing from 1989 to 15 the present. I'll represent that to you. 16 If I'm incorrect about that, I'm sure 17 your counsel will weigh in. 18 But she was a corporate 19 representative, and she testified to bind 20 the company on the testing that was 21 performed on Johnson & Johnson talc. 22 A. I'm sorry. Your voice 23 dropped off for a minute. You said she 24 was -- and part of your sentence dropped</p>	<p style="text-align: right;">Page 236</p> <p>1 think she means composite, not deposit -- 2 "is made and sent to an external lab for 3 TEM." 4 Do you see that? 5 A. Yes. 6 Q. So only quarterly testing 7 was done for purposes of asbestos? 8 MR. CHACHKES: I'm just 9 going to object to providing an 10 incomplete part of her depo. 11 BY MS. O'DELL: 12 Q. Okay. That was what was -- 13 her testimony was. 14 A. So I haven't seen the whole 15 deposition. I know that the silos were 16 sampled at regular intervals as they were 17 being filled. So there was sampling 18 being done. How often the TEM actual 19 measurements were done, this indicates 20 quarterly, but on a composited sample 21 that was taking frequently during 22 filling. 23 Q. Quarterly, a quarterly 24 testing was performed.</p>
<p style="text-align: right;">Page 235</p> <p>1 off. 2 Q. Her testimony binds the 3 company as to how they were testing 4 Johnson & Johnson talc for asbestos. 5 A. Okay. Thank you. 6 Q. Now, she was asked a series 7 of questions regarding the testing for 8 asbestos. 9 If you turn to Page 219. 10 Let me just go back. She's 11 asked about testing for various things. 12 And she gets to TEM, which you understand 13 to be transmission electron microscopy. 14 A. Correct. 15 Q. And she said, "The TEM 16 quarterly sample is constructed from two 17 silos' composites in Vermont. So as a 18 silo is being filled a periodic sampling 19 is done of the entire product to 20 represent what's in the silos. And then 21 that is composited, sent to Denver for 22 x-ray defraction, basically the J-4-1 23 method. For those samples, a quarterly 24 deposit is being made and sent to" -- I</p>	<p style="text-align: right;">Page 237</p> <p>1 A. Quarterly testing on a 2 sample that was taken at regular 3 intervals during filling. 4 Q. So according to Ms. Pier 5 neither weekly or biweekly testing for 6 asbestos was conducted, at least for the 7 period of 1989 forward? 8 MR. CHACHKES: Objection. 9 BY MS. O'DELL: 10 Q. True? Her testimony, it was 11 quarterly. 12 A. So she says TEM quarterly. 13 Q. Correct. 14 A. Does that imply as well that 15 the XRD was only done quarterly or PLM 16 was only done quarterly? 17 Q. Testing for asbestos was 18 only done quarterly, is what her 19 testimony was. 20 MR. CHACHKES: Objection. 21 MR. LOCKE: Objection. 22 THE WITNESS: Well, it says 23 TEM was done quarterly. There are 24 other tests for asbestos. So I</p>

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1 would want to see, again, what was
 2 the schedule for PLM and XRD.
 3 BY MS. O'DELL:
 4 Q. Were you provided Ms. Pier's
 5 deposition?
 6 A. I only had one page.
 7 Q. Of her deposition?
 8 A. Yes.
 9 Q. So you had one page of
 10 Ms. Pier's deposition and one page of
 11 John Hopkins' deposition?
 12 A. Yes.
 13 Q. What pages were you
 14 provided?
 15 A. I would have to look in my
 16 notes and see which page I got. But it
 17 was one that was cited by Cook and
 18 Krekeler.
 19 Q. And that was the only --
 20 A. That was the only page I
 21 got.
 22 Q. In your report on Page 13,
 23 you cite a letter from McCrone. And the
 24 Bates number is JNX -- JNJMX-68.

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1 Do you see that?
 2 A. Yes.
 3 Q. How did you obtain this
 4 document?
 5 A. That was, if not part of the
 6 materials that I received Cook and
 7 Krekeler, it was related to requests I
 8 made about more information on sampling
 9 graphs.
 10 Q. It was not cited by Cook or
 11 Krekeler. So this was a document that
 12 was selected by counsel and provided to
 13 you.
 14 MR. FROST: Objection.
 15 THE WITNESS: I don't know
 16 that it was provided at their
 17 insistence or whether I had
 18 requested information.
 19 BY MS. O'DELL:
 20 Q. And if you requested
 21 information, then they would have
 22 selected the document that was provided
 23 to you, correct?
 24 MR. FROST: Objection.

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1 THE WITNESS: I would assume
 2 so.
 3 BY MS. O'DELL:
 4 Q. If Ms. Pier testified in her
 5 deposition that all testing for asbestos
 6 took place on a quarterly basis, would
 7 that be important for your opinion in
 8 this case?
 9 MR. CHACHKES: Objection.
 10 THE WITNESS: I think I
 11 would want to see the full context
 12 of what she was talking about.
 13 BY MS. O'DELL:
 14 Q. You would have wanted to see
 15 that?
 16 A. Yes.
 17 Q. And that was not provided to
 18 you, was it?
 19 A. As far as I know it was not.
 20 Perhaps I missed it in the box folder.
 21 Q. You were provided, according
 22 your testimony a few minutes ago, one
 23 page of the Pier deposition, true?
 24 A. That's what I saw in my

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1 collection.
 2 (Document marked for
 3 identification as Exhibit
 4 Poulton-22.)
 5 BY MS. O'DELL:
 6 Q. Let me show you what I'm
 7 marking Exhibit 22, which is the letter
 8 to Armstrong World Industries from
 9 McCrone.
 10 Do you recall this?
 11 A. I think I recall seeing
 12 this.
 13 Q. And you cite it in your
 14 report, correct?
 15 A. If you say so.
 16 Q. It's your report. Did you
 17 cite it in your report?
 18 MR. CHACHKES: Objection.
 19 THE WITNESS: There are so
 20 many documents cited I would have
 21 to look at this number --
 22 BY MS. O'DELL:
 23 Q. Well, to be --
 24 A. -- and look at my list

<p style="text-align: right;">Page 242</p> <p>1 honestly.</p> <p>2 Q. Yeah. Well, to be fair,</p> <p>3 Dr. Poulton, I had already directed your</p> <p>4 attention to it on Page 13, fair?</p> <p>5 A. Fair.</p> <p>6 Q. I'd already done that. So</p> <p>7 I'm not trying to be tricky. I'm just</p> <p>8 asking you if this is what you cited.</p> <p>9 And I understand -- is that a yes? Is</p> <p>10 this the document that you were referring</p> <p>11 to?</p> <p>12 A. Is this the JNJMX68</p> <p>13 document?</p> <p>14 Q. Yes.</p> <p>15 A. Okay.</p> <p>16 Q. You rely on it for purposes</p> <p>17 of this statement. It's in the last full</p> <p>18 paragraph at the bottom. Windsor -- and</p> <p>19 it says, "Suffice it to say that amidst</p> <p>20 mutterings of 'that inspector is no</p> <p>21 longer with us,' the Illinois EPA</p> <p>22 wrote" -- "wrote to Windsor Minerals to</p> <p>23 the effect that they were satisfied that</p> <p>24 Windsor product is free of asbestos."</p>	<p style="text-align: right;">Page 244</p> <p>1 from testing that are dated after 1987</p> <p>2 where cosmetic talc has tested positive</p> <p>3 for asbestos, true?</p> <p>4 A. I don't recall. We'd have</p> <p>5 to look at specific examples.</p> <p>6 Q. Let me ask you to turn to --</p> <p>7 I'll find it, to Page 19 of Dr. Cook's</p> <p>8 report.</p> <p>9 A. On what page?</p> <p>10 Q. Page 19. If you'll look</p> <p>11 about three-fourths of the way down,</p> <p>12 there's a sample dated February the 25th,</p> <p>13 1992.</p> <p>14 Do you see that?</p> <p>15 A. J&J-202.</p> <p>16 Q. That's correct.</p> <p>17 A. Yes.</p> <p>18 Q. The testing entity was</p> <p>19 Cyprus. The mine was Argonaut, you know,</p> <p>20 Hammondsville.</p> <p>21 They tested ore, and then</p> <p>22 the results revealed fibrous tremolite</p> <p>23 was identified in exposures in cores at</p> <p>24 East Argonaut 7 and Black Bear mines.</p>
<p style="text-align: right;">Page 243</p> <p>1 That's what the document</p> <p>2 says, right?</p> <p>3 A. That's what that quote says.</p> <p>4 Q. And you cited for purposes</p> <p>5 of saying that McCrone has been of the</p> <p>6 opinion that Windsor product is free of</p> <p>7 asbestos for over 15 years, correct?</p> <p>8 A. That's what this document</p> <p>9 says.</p> <p>10 Q. And Mr. Stewart from McCrone</p> <p>11 goes on to say, "That has always been our</p> <p>12 opinion and continues to be our opinion</p> <p>13 based on 15 years of closely examining</p> <p>14 this product."</p> <p>15 And that's what you refer</p> <p>16 to, correct?</p> <p>17 A. This product, and I think</p> <p>18 there are, in reference to the Illinois</p> <p>19 EPA, there was a document that indicated</p> <p>20 what the Illinois EPA was looking at was</p> <p>21 potentially industrial talc and not</p> <p>22 cosmetic grade talc, if my memory is</p> <p>23 correct.</p> <p>24 Q. You have seen test results</p>	<p style="text-align: right;">Page 245</p> <p>1 Do you see that?</p> <p>2 A. I see that column.</p> <p>3 Q. And did you review the test</p> <p>4 results that are compiled in the asbestos</p> <p>5 chart that Dr. Cook and Dr. Krekeler have</p> <p>6 in their reports?</p> <p>7 A. I looked at some.</p> <p>8 Q. But you did not look at all?</p> <p>9 A. I did not look at all of</p> <p>10 them. I tried to focus on those related</p> <p>11 to the mine.</p> <p>12 Q. And you are aware of tests</p> <p>13 that postdate -- that predate 1987 where</p> <p>14 talc used in Johnson's talcum powder</p> <p>15 products tested positive for asbestos?</p> <p>16 MR. CHACHKES: Objection.</p> <p>17 BY MS. O'DELL:</p> <p>18 Q. True?</p> <p>19 A. I -- I don't recall that, so</p> <p>20 we'd have to look at some specific</p> <p>21 examples, those specific tests.</p> <p>22 Q. And I'm -- I'm -- as you're</p> <p>23 sitting here today, now we've been</p> <p>24 through some of them that were from</p>

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1 Italian talc.

2 But as you're sitting here
3 today, your testimony is that you're
4 not -- you have not reviewed test results
5 from tests prior to May 21, 1987, that --

6 MR. CHACHKES: Objection.

7 THE WITNESS: No, that's not
8 what I said.

9 BY MS. O'DELL:

10 Q. I wasn't finished.

11 A. Oh, sorry.

12 Q. But -- so you -- so my
13 question is, are you aware of test
14 results prior to 1987 reporting the
15 presence of asbestos in talc used in
16 Johnson's Baby Powder?

17 A. I don't recall those tests.
18 But if we look at specific examples
19 you're thinking of, we can see where
20 they're from.

21 Q. And certainly you would
22 agree with me that there were numerous
23 tests listed in the table compiling
24 asbestos test results that were dated

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1 prior to 1987?

2 A. Yes. There are tests before
3 1987.

4 Q. And in some you -- you
5 looked at, and some you did not look at,
6 fair?

7 A. Fair.

8 Q. And I'll direct your -- your
9 attention to Exhibit 23.

10 (Document marked for
11 identification as Exhibit
12 Poulton-23.)

13 BY MS. O'DELL:

14 Q. And this is a test result
15 from April 14, 1971.

16 Do you see that?

17 A. I see the date.

18 Q. From the Colorado School of
19 Mines, correct?

20 A. Yes.

21 Q. The results are being
22 reported to Robert Russell at Johnson &
23 Johnson, correct?

24 A. Yes.

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1 Q. And there are two samples
2 being tested, Sample A and Sample B.

3 Do you see that?

4 A. Yes.

5 Q. And going down the page, the
6 summary and conclusions, it says, "X-ray
7 defraction studies indicated a trace of
8 tremolite and actinolite in CSM RI Sample
9 Number 16."

10 Do you see that?

11 A. I see that.

12 Q. And Colorado School of Mines
13 is a respected institution in the world
14 of geology, fair?

15 A. I have to say under oath
16 that a rival school is respected, yes.

17 Q. And if you turn over to
18 Page 2 of the results. We're talking
19 about microscopic analyses of the -- of
20 the as-received samples.

21 Do you see that?

22 A. I see that sentence.

23 Q. And they note tremolite and
24 actinolite in Sample Number 16.

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1 Do you see that?

2 A. Yes.

3 Q. And so this would be an
4 example of a positive test result for
5 talc used in Johnson's Baby Powder prior
6 to 1987, true?

7 A. I don't see any reference to
8 what the samples are. It says, "Two
9 Vermont final product samples." It
10 doesn't say that this is cosmetic grade.
11 So I don't know if this is industrial
12 talc or if this is cosmetic talc.

13 Q. In terms of -- of Johnson &
14 Johnson, they sell cosmetic talc, true?

15 A. They sell cosmetic talc.

16 Q. And in this report, you
17 can't say to -- to -- with certainty that
18 that was not cosmetic talc, can you?

19 A. Conversely you would want to
20 say with certainty, and this memo does
21 not say in certainty what the -- what the
22 samples are.

23 So there -- there needs to
24 be something that identifies these

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1 samples.

2 Q. And if -- just -- you know,

3 the document states that these are two

4 Vermont final product samples, talking

5 about final talcum powder product

6 samples.

7 Do you see that on Page 1?

8 MR. FROST: Objection.

9 THE WITNESS: It doesn't

10 follow necessarily, because it

11 says product that it's going to be

12 cosmetic grade.

13 BY MS. O'DELL:

14 Q. And -- and it's your belief

15 that -- is it your belief that industrial

16 grade talc is -- well, strike that.

17 Let me ask you to turn,

18 Dr. Poulton, to Exhibit 28, Hopkins 28.

19 And if you'll look on Page 1

20 you'll see a July 7th -- can you not find

21 it, ma'am?

22 A. It's a deep excavation.

23 Q. Page 1.

24 A. Okay.

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1 Q. You'll see July 7, 1971.

2 It's at J&J-15. Do you see that about

3 midway down the page?

4 A. Yes.

5 Q. That's Vermont talc.

6 Do you see that?

7 A. Yes.

8 Q. It's processed talc.

9 Do you see that?

10 A. Sample 344-L?

11 Q. Yes. And it tested positive

12 for tremolite and actinolite.

13 Do you see that?

14 A. I see that.

15 Q. If you go down further,

16 October 12, 1971, do you see that,

17 J&J-23?

18 A. Yes.

19 Q. McCrone tested Shower to

20 Shower.

21 Do you see that?

22 A. Yes.

23 Q. It had traces of tremolite.

24 Do you see that?

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1 A. Wait, which date are we

2 looking at?

3 Q. October 12, 1971.

4 A. And that's J&J-23?

5 Q. Yes.

6 A. And it's Shower to Shower?

7 Q. Yes. Do you see that it has

8 traces of -- of chrysotile?

9 Do you see that?

10 A. Yeah. I'm reading the

11 description below it. Is that unrelated?

12 Q. That is unrelated to that.

13 It had chrysotile, correct?

14 MR. CHACHKES: Objection.

15 THE WITNESS: In the JNJ23?

16 BY MS. O'DELL:

17 Q. Yes.

18 A. That's what it says. We

19 would want to look at that full report.

20 Q. But if -- if you'll go

21 further, Page 2, you'll see on Line 3,

22 August 24, 1972, there is a sample of

23 Shower to Shower.

24 Do you see that?

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1 A. August 24, 1972, JNJ29.

2 Sperry Rand?

3 Q. Yes. "Shower to Shower was

4 tested, and the test found asbestos

5 fibers could be detected in the sample."

6 Do you see that?

7 A. I see that there was

8 discussion of whether that was a true

9 finding.

10 Q. Where do you see that?

11 A. I remember that report.

12 Q. From what?

13 A. I remember a discussion

14 about Sperry Rand doing testing and

15 whether or not their methodology was able

16 to detect asbestos.

17 Q. What methodology are you

18 referring to?

19 A. I seem to recall and we can

20 pull up that document. That perhaps they

21 used SEM.

22 Q. Okay. Let me just take you

23 to the bottom of the page, 1221 1973.

24 Do you see that?

<p style="text-align: right;">Page 254</p> <p>1 A. JNJ263?</p> <p>2 Q. Correct. Colorado School of</p> <p>3 Mines.</p> <p>4 A. Yes.</p> <p>5 Q. Okay. They understand how</p> <p>6 to test talcum powder for asbestos, don't</p> <p>7 they, Dr. Poulton?</p> <p>8 MR. FROST: Objection.</p> <p>9 THE WITNESS: I don't know</p> <p>10 what they understand.</p> <p>11 BY MS. O'DELL:</p> <p>12 Q. Do you have any reason to</p> <p>13 believe that they are not experts in</p> <p>14 testing talc for asbestos?</p> <p>15 A. In 1973, I think a lot of</p> <p>16 people were wondering how to do it.</p> <p>17 Q. Okay. You are not an expert</p> <p>18 in it?</p> <p>19 A. I am not an expert in it.</p> <p>20 Q. And the finding from the</p> <p>21 Colorado School of Mines, using TEM on a</p> <p>22 Vermont talc sample was they identified</p> <p>23 chrysotile, correct?</p> <p>24 MR. CHACHKES: Objection.</p>	<p style="text-align: right;">Page 256</p> <p>1 Q. And Windsor 66 ore and</p> <p>2 product was tested and tremolite and</p> <p>3 chrysotile was found using TEM, correct?</p> <p>4 A. And the next column says</p> <p>5 possible contamination. So we'd want to</p> <p>6 look at the details on that.</p> <p>7 Q. Multiple test results</p> <p>8 showing asbestos from tests dated prior</p> <p>9 to 1987 were provided to you,</p> <p>10 Dr. Poulton, true?</p> <p>11 MR. FROST: Objection.</p> <p>12 THE WITNESS: Yes. We've</p> <p>13 looked at a number of samples in</p> <p>14 this chart.</p> <p>15 BY MS. O'DELL:</p> <p>16 Q. And the statement in the</p> <p>17 McCrone letter that Windsor's product is</p> <p>18 free of asbestos for over 15 years is</p> <p>19 incorrect based on the testing data that</p> <p>20 we reviewed, correct?</p> <p>21 MR. CHACHKES: Objection.</p> <p>22 THE WITNESS: I disagree</p> <p>23 with that statement.</p> <p>24 BY MS. O'DELL:</p>
<p style="text-align: right;">Page 255</p> <p>1 THE WITNESS: And again, we</p> <p>2 would want to look at that</p> <p>3 document and the testing that they</p> <p>4 did.</p> <p>5 BY MS. O'DELL:</p> <p>6 Q. Do you have any reason to</p> <p>7 believe that that is not an accurate</p> <p>8 summary of that test result?</p> <p>9 A. The details are important in</p> <p>10 looking at the results and so we want to</p> <p>11 look at what the samples are and how the</p> <p>12 testing was done, make sure there was no</p> <p>13 contamination. Make sure proper</p> <p>14 methodologies were done.</p> <p>15 Q. You're not an expert on the</p> <p>16 proper methodologies, correct?</p> <p>17 A. I am not.</p> <p>18 Q. And let me ask you to look</p> <p>19 further on the next page in 19 -- midway</p> <p>20 down the page, May 8, 1974. You'll see</p> <p>21 JNJ66.</p> <p>22 A. Next to McCrone?</p> <p>23 Q. Yes.</p> <p>24 A. Yes.</p>	<p style="text-align: right;">Page 257</p> <p>1 Q. On Page 14 of your report,</p> <p>2 you assert that Dr. Krekeler's theory</p> <p>3 that composite sampling should not be</p> <p>4 used for cosmetic products -- in other</p> <p>5 words, Dr. Krekeler asserts that</p> <p>6 composite samples is an inappropriate</p> <p>7 method for cosmetics where there may be</p> <p>8 trace amounts of carcinogens.</p> <p>9 Do you recall that from his</p> <p>10 report?</p> <p>11 A. I recall him saying that.</p> <p>12 Q. And it's your opinion that</p> <p>13 that is incorrect?</p> <p>14 A. I disagree with him that you</p> <p>15 can't use composite sampling.</p> <p>16 Q. And you cite Stanley as a</p> <p>17 basis for your disagreement with</p> <p>18 Dr. Krekeler, correct?</p> <p>19 A. Stanley is an example of</p> <p>20 sampling theory.</p> <p>21 Q. And you rely on Stanley in</p> <p>22 your critique of Dr. Krekeler, true?</p> <p>23 A. I cite Stanley as an -- as</p> <p>24 an example of sampling theory.</p>

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1 Q. And in fact, Stanley is an
 2 article that deals with sampling
 3 involving gold, correct?
 4 A. No.
 5 Q. That's not correct?
 6 A. So Stanley's model was
 7 generalizable as he states in his paper
 8 and we can -- and we can look at the
 9 quote, I believe to all geologic
 10 materials was his statement.
 11 Q. Okay. Let's look at
 12 Stanley.
 13 Exhibit 24.
 14 (Document marked for
 15 identification as Exhibit
 16 Poulton-24.)
 17 BY MS. O'DELL:
 18 Q. Exhibit 24. This is the
 19 paper that you're relying on?
 20 A. Yes.
 21 Q. One of the assumptions that
 22 Stanley makes is that the geological
 23 material exhibits homogenous distribution
 24 of the element of interest, true?

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1 A. We would have to go through
 2 this paper, because I believe that he was
 3 disputing that you would use the equant
 4 grain model.
 5 Q. In fact, if you look at Page
 6 110 on the right-hand side of the page
 7 down at the bottom, do you see that
 8 under, sample size and -- size and sample
 9 variance.
 10 Do you see that?
 11 A. Yes.
 12 Q. He states, "Assume that this
 13 geological material exhibits a homogenous
 14 distribution of the element of interest
 15 at least at and above the scale of the
 16 sample."
 17 Did I read that correctly?
 18 A. You did. However he's
 19 starting his derivation.
 20 Q. You would agree in terms of
 21 asbestos in talc, that would not be a
 22 substance that is homogenous in its
 23 distribution across talc ore, true?
 24 MR. CHACHKES: Objection.

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1 THE WITNESS: Correct.
 2 BY MS. O'DELL:
 3 Q. And in terms of -- of
 4 sampling talc, it would be fair to say
 5 that the minerals of interest, asbestos,
 6 fibrous talc, chromium, cobalt and
 7 nickel, they would not be homogenous
 8 across the ore body, true?
 9 MR. CHACHKES: Objection.
 10 THE WITNESS: Asbestos
 11 should not be homogenous across
 12 the ore body. I believe I would
 13 need to look specifically at metal
 14 distribution. Because we've
 15 talked about arsenic being a
 16 function of particular fractures.
 17 BY MS. O'DELL:
 18 Q. When you use composite
 19 sampling like what was used in Vermont,
 20 isn't it fair to say that the sampling in
 21 terms of isolating a particular element
 22 that you are diluting your ability to
 23 find a particular element because many,
 24 many samples are composited and then only

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1 a small amount of that composited sample
 2 is tested?
 3 A. So there are two ways that
 4 we use composite that are different. So
 5 could you clarify for me which way you
 6 use composite?
 7 Q. Well, I'm talking about the
 8 way they use composite sampling in
 9 Vermont. For example, they took daily
 10 sample from certain silos, put it in a
 11 bucket. That became their composite
 12 sample location.
 13 Are you in agreement with me
 14 there?
 15 A. Yes.
 16 Q. And then they took that
 17 composite, in some instances on a monthly
 18 basis, and they took a small portion and
 19 that's what they tested, fair?
 20 A. So the -- when you do that
 21 kind of sampling and they talk about
 22 this, they blend the material, and then
 23 there are specific ways that you split
 24 that sample to get something that is

<p style="text-align: right;">Page 262</p> <p>1 statistically representative of that 2 population of your sample. 3 So I think in many ways you 4 could argue that this method is more 5 representative of the bulk, but certainly 6 what's important is that you're relating 7 all of your sampling to the material 8 that's coming through. 9 Q. What -- what are you relying 10 on for your understanding that there was 11 a particular blending process that took 12 place in creating composite samples? 13 A. I believe I saw a document 14 that talked about once they took the 15 samples that they collected as they were 16 filling the silo, I -- I believe I saw 17 somewhere that they talked about how they 18 broke that down to -- to collect a sample 19 to do the microscopy. 20 Q. Did you cite that document 21 in your report? 22 A. I don't remember if I did. 23 MS. O'DELL: Why don't we go 24 off the record.</p>	<p style="text-align: right;">Page 264</p> <p>1 relying on for your opinion in that 2 regard? 3 A. So the two are J&J 0043746. 4 Q. Why don't you give that to 5 me one more time, please. 6 A. Okay. J&J 0043746 and 7 Downey Exhibit 51. 8 Q. And do you cite those in 9 your report? 10 A. I don't remember if I do or 11 not. 12 Q. And you said J&J 007437 -- 13 A. No. 004374746. 14 Q. Okay. And that's not 15 included on your reliance list, 16 Dr. Poulton. 17 A. Is it not? 18 Q. No. 19 A. Okay. 20 Q. Dr. Poulton, you realize 21 today that this is my opportunity to 22 understand what you've seen and you 23 relied on and what your opinions are in 24 this case?</p>
<p style="text-align: right;">Page 263</p> <p>1 MR. CHACHKES: Take a break, 2 it's been about an hour? 3 MR. FROST: Yeah, I'd say 4 it's been about an hour and 5 5 minutes. 6 THE VIDEOGRAPHER: The time 7 is 4:19 p.m. Off the record. 8 (Short break.) 9 THE VIDEOGRAPHER: We are 10 back on the record. The time is 11 4:49 p.m. 12 BY MS. O'DELL: 13 Q. Dr. Poulton, prior to the 14 break, you testified that you have seen a 15 document that describes the manner in 16 which composite samples are, you know, 17 mixed and prepared for testing. Do you 18 recall that? 19 A. Correct. 20 Q. And you were going to look 21 for that document during the break. Did 22 you do that? 23 A. Yes. 24 Q. And what document are you</p>	<p style="text-align: right;">Page 265</p> <p>1 A. Yes. 2 Q. And -- and so these 3 documents -- and you said Downey 51? 4 A. Yes. 5 Q. And Downey 51 is not on your 6 reliance list. 7 MR. CHACHKES: I'm just 8 going to object. They have 9 alternate stampings and numbers. 10 So that's not quite clear yet. 11 MS. O'DELL: We'll -- we'll 12 check that. 13 MR. CHACHKES: Yeah. 14 MS. O'DELL: But neither the 15 Bates number that you provided to 16 me today for the J&J document or 17 Downey 51 are on your reliance 18 list. 19 BY MS. O'DELL: 20 Q. So, were those provided to 21 you by counsel during the break? 22 A. I asked them to search for 23 certain keywords. 24 Q. Have you expressed all of</p>

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1 your criticisms of -- if you have any, of
 2 Dr. Cook and Dr. Krekeler regarding
 3 fibrous talc in your report?
 4 A. Could you --
 5 Q. Are all your opinions or
 6 criticisms of Dr. Cook and Krekeler in
 7 relation to fibrous talc contained in
 8 your report?
 9 A. I am not sure that I talk
 10 specifically about fibrous talc. I
 11 believe I focused on asbestos minerals.
 12 Q. So if you have any
 13 criticisms of Dr. Cook and Dr. Krekeler
 14 regarding fibrous talc, they would be in
 15 your report, fair?
 16 A. I would have to take a quick
 17 look and see if I ever mentioned fibrous
 18 talc.
 19 Q. I will -- I will say that
 20 I've looked and you don't mention fibrous
 21 talc.
 22 A. Okay.
 23 Q. And I'm trying to make sure
 24 I understand, because this is my chance

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1 with you today, that if you don't have
 2 any opinions in your report regarding
 3 fibrous talc, that means you're not going
 4 to have any if we get to the point of
 5 trial, fair?
 6 A. I'm -- I'm not quite sure
 7 I'm understanding. So if I don't mention
 8 fibrous talc in the context of Drs. Cook
 9 and Krekeler --
 10 Q. You don't mention fibrous
 11 talc in your report at all, correct.
 12 A. Okay.
 13 Q. And so I'm assuming based on
 14 that, you don't have any opinions on
 15 fibrous talc, fair?
 16 A. I believe that's fair.
 17 Q. Based on that answer, I'm
 18 not going to have to take you through
 19 that big slog of a document.
 20 Okay. Let me show you what
 21 I'm going to -- in terms of -- of your
 22 opinions regarding selective mining, let
 23 me just turn you to the right page in
 24 your report. Page 16.

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1 Do you see that?
 2 A. I do.
 3 Q. Let me ask you to look at
 4 what was previously marked as Downey
 5 Exhibit 15. And I'll mark it for
 6 purposes of your deposition as
 7 Exhibit 25.
 8 (Document marked for
 9 identification as Exhibit
 10 Poulton-25.)
 11 BY MS. O'DELL:
 12 Q. Did you review this document
 13 in -- in reaching your opinions in this
 14 case?
 15 A. I did.
 16 Q. And let me ask you -- well,
 17 I tried hard not to mark this, but I've
 18 just got to. So there you go.
 19 Let me also mark what was
 20 previously identified as Downey 14. And
 21 I'm going to mark it Exhibit 26 to your
 22 deposition.
 23 (Document marked for
 24 identification as Exhibit

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1 Poulton-26.)
 2 BY MS. O'DELL:
 3 Q. And these documents relate
 4 to the -- a drill -- a core drill program
 5 that was undertaken at the Hammondsville
 6 mine, you know, in -- first reported in
 7 1970, and then there were other drill
 8 cores taken and they were reported, I
 9 believe, in 1978.
 10 Do you recall that?
 11 A. Yes.
 12 Q. In relation to the drilling
 13 that was conducted at Hammondsville,
 14 and -- and I'm going to be toggling back
 15 and forth because both of these documents
 16 deal with the drilling program at -- in
 17 Hammondsville.
 18 But Downey Exhibit 15, and
 19 Bates Number 4369 -- let me get to the
 20 right page, 979.
 21 A. Is that marked Page 4,
 22 careful attention?
 23 Q. Yes.
 24 And if you'll look, one of

<p style="text-align: right;">Page 270</p> <p>1 the criticisms of the drilling program at 2 Hammondsville was the distance between 3 the particular drill holes, true? 4 A. Yes. Mining engineers and 5 geologists always want more data. 6 Q. Right. And, in fact, for 7 the Hammondsville exploration, these 8 drill holes, some of them were nearly 9 500 feet apart, correct? 10 A. So they say some holes are 11 nearly 500 feet from near shaft drill 12 holes. But again, it's the context of 13 what part of the ore body they are 14 sampling. 15 Q. And in terms of the 16 precision of the data that can be gleaned 17 from core drilling, the closer the holes 18 are together, the more data that can be 19 learned about the underlying ore body, 20 fair? 21 A. Not necessarily. So you 22 could have -- 23 Q. Is that a general principle? 24 A. No, I wouldn't -- I wouldn't</p>	<p style="text-align: right;">Page 272</p> <p>1 of -- of dikes within the actual talc 2 ore, true? 3 A. We'd have to look at that 4 specific situation. 5 Q. Do you recall that, having 6 reviewed the documents? 7 A. I've reviewed documents and 8 I've seen reference to small stringers 9 that ultimately were not in the ore body. 10 Q. And -- but they occurred 11 within the talc deposit, correct? 12 A. Well, if you think of talc 13 deposit including the surrounding 14 non-talc rock. 15 Q. I'm thinking of within the 16 actual deposit where the talc is located, 17 true? 18 A. So we would want to look at 19 those specific examples. 20 Q. Do you recall having 21 reviewed documents, both from 22 Hammondsville and Argonaut that describe 23 in detail the presence of dikes within 24 the talc ore body?</p>
<p style="text-align: right;">Page 271</p> <p>1 necessarily generalize, because it very 2 much depends on what you're trying to 3 sample. 4 Q. Okay. For purposes of 5 evaluating the structure of an ore body 6 like talc, particularly because they are 7 smaller in scope, you mentioned that 8 earlier today, the mines at Vermont were 9 quite small, fair? 10 A. Yes. 11 Q. And -- and the ore bodies 12 within the mines, the talc ore bodies, 13 were variable, in other words, they 14 were -- there were dikes that were 15 present within the ore body, true? 16 A. I would have to look at 17 whether we would say present in the ore 18 body or present on the fringes. 19 Q. Or within the actual ore 20 body, correct? 21 A. We'd have to look at that 22 specific language. 23 Q. In -- in fact, there are 24 drill cores that discuss the presence</p>	<p style="text-align: right;">Page 273</p> <p>1 A. I remember seeing the 2 presence of dikes. I would have to 3 confirm whether or not they were 4 considered to be in the ore body, as in 5 the minable ore. 6 Q. If you'll turn to Exhibit 15 7 (sic), Downey-15, to Bates 437034? 8 MR. CHACHKES: Exhibit 25. 9 THE WITNESS: What was the 10 page number? 11 BY MS. O'DELL: 12 Q. 437034. Do you see that? 13 A. Your voice dropped off 14 again. 15 Q. 437034. 16 A. 034. 17 Q. Do you see that? 18 A. I see image 14. 19 Q. Figure 14 has a subtitle 20 surface geologic map of the Argonaut ore 21 body showing a general relationship of 22 various rocks. 23 And the -- this is Figure 24 14. And this is a description of the ore</p>

<p style="text-align: right;">Page 274</p> <p>1 body at Argonaut, true?</p> <p>2 A. That's what the caption</p> <p>3 says.</p> <p>4 Q. Yes. And within the center</p> <p>5 of this is actually serpentine, correct?</p> <p>6 A. That's how it's mapped.</p> <p>7 Serpentine.</p> <p>8 Q. And within the -- outside</p> <p>9 the serpentine there is a -- there are</p> <p>10 small veins of talc carbonate schist?</p> <p>11 A. You're looking specifically</p> <p>12 at the vertical dashes? Yes.</p> <p>13 Q. Right here in the -- what in</p> <p>14 the nomenclature is the -- is the little</p> <p>15 circles.</p> <p>16 Do you see that?</p> <p>17 A. So the circles are carbonate</p> <p>18 talc rock. You had mentioned talc</p> <p>19 carbonate schist.</p> <p>20 Q. All right. Let's be fair</p> <p>21 then. This with the circles is carbonate</p> <p>22 talc rock, meaning there's more carbonate</p> <p>23 than talc, correct?</p> <p>24 A. I believe so. I'd have to</p>	<p style="text-align: right;">Page 276</p> <p>1 talc ore?</p> <p>2 A. It's present within the</p> <p>3 talc.</p> <p>4 Q. And in terms of delineating</p> <p>5 distinctions in the talc deposit, the</p> <p>6 greater number of drill cores that you</p> <p>7 have to gather data, the greater</p> <p>8 precision by which you're going to</p> <p>9 understand the contours of the particular</p> <p>10 talc deposit, true?</p> <p>11 A. So I would say that first</p> <p>12 and foremost, you place your drill holes</p> <p>13 according to the geology that you're</p> <p>14 seeking to confirm. They could be angled</p> <p>15 and actually cover more of the deposit</p> <p>16 than vertical closely spaced holes would.</p> <p>17 So context is important for the</p> <p>18 information that you're trying to derive.</p> <p>19 Q. Isn't it -- wouldn't you</p> <p>20 agree with me that when there is</p> <p>21 variations in the drill hole spacing, the</p> <p>22 thickness of the ore body, or grade, that</p> <p>23 will distort the results obtained through</p> <p>24 the triangulation method of drilling?</p>
<p style="text-align: right;">Page 275</p> <p>1 look at their definition.</p> <p>2 Q. And then there's talc</p> <p>3 carbonate schist here, which is a greater</p> <p>4 amount of talc, correct?</p> <p>5 A. I believe that's their</p> <p>6 definition.</p> <p>7 Q. And so looking at this,</p> <p>8 there is variability within the ore body</p> <p>9 in terms of width and length of talc,</p> <p>10 correct?</p> <p>11 A. Yes.</p> <p>12 Q. If you'll turn over to the</p> <p>13 next page, also seeing -- there's biotite</p> <p>14 chlorite schist within the actual ore</p> <p>15 body, correct? I'm pointing to that</p> <p>16 right there.</p> <p>17 A. Yes.</p> <p>18 Q. So dikes that occur actually</p> <p>19 within the talc ore body, correct?</p> <p>20 A. Yes. It's just a question</p> <p>21 of whether you mine that section of the</p> <p>22 ore body is the point that I've been</p> <p>23 making.</p> <p>24 Q. But it is present within the</p>	<p style="text-align: right;">Page 277</p> <p>1 A. Could you repeat that for</p> <p>2 me?</p> <p>3 Q. Happy to. If you'll look</p> <p>4 at --</p> <p>5 MS. O'DELL: I'm done with</p> <p>6 that, Henry. Thank you.</p> <p>7 BY MS. O'DELL:</p> <p>8 Q. Are you familiar with a</p> <p>9 triangular method that's used in planning</p> <p>10 core drilling?</p> <p>11 A. It's what we did before we</p> <p>12 had computers.</p> <p>13 Q. And that's what was used in</p> <p>14 Hammondsville and Hamm and Argonaut in</p> <p>15 the '70s and early '80s, fair?</p> <p>16 A. That would be my</p> <p>17 understanding.</p> <p>18 Q. Okay. And that's what is</p> <p>19 depicted on -- in your report at Page 18,</p> <p>20 is a diagram using a triangulation</p> <p>21 method -- triangulation method. That's</p> <p>22 what you include in the body of your</p> <p>23 report?</p> <p>24 A. Yes.</p>

<p style="text-align: right;">Page 278</p> <p>1 Q. Correct? And you include it 2 in your report as Figure 1-B, correct? 3 A. Yes. 4 Q. And this is a model that is 5 used to evaluate ore reserves, correct? 6 A. Yes. It can be. 7 Q. And that's typically the use 8 of a model like this, to evaluate the 9 grade and the volume of a particular type 10 of ore, true? 11 A. So that's part of what you 12 use it for. 13 Q. It's often and most often 14 used as an economic model in order to 15 understand how much product there is to 16 sell, true? 17 A. It's one of the uses. 18 Q. And in terms of the data 19 within this model for Hammondsville, 20 there was, in some areas insufficient 21 drill core in order to fully complete 22 this model, correct? 23 A. Probably for the areas that 24 they were contemplating extending the</p>	<p style="text-align: right;">Page 280</p> <p>1 dated May 21, 1992 that discusses the 2 Hamm mine core drilling, correct? 3 A. Yes. 4 Q. It was prepared as an 5 overview of drilling that had occurred in 6 1992, correct? 7 A. I believe so. 8 Q. And there were four drill 9 holes that were drilled. 10 Do you see that, on page -- 11 I believe it's 5 of the memo. 12 A. Yes. 13 Q. And this is a summary on 14 Page 5 of what was logged from the cores. 15 Do you see that? 16 A. Yes. 17 Q. And so Hole 91 -- 92-1 has 18 intervals of talc carbonate and then 19 serpentinite and then it goes again to 20 talc carbonate and serpentinite. And you 21 see a chloritic dike that's at 235 feet. 22 Do you see that? 23 A. I see that. 24 Q. So there are in this</p>
<p style="text-align: right;">Page 279</p> <p>1 mine into, was the way the reports were 2 written. 3 Q. In addition to these drill 4 core programs 1970 and 1978 at Hamm -- at 5 Hammondsville, there was also drilling 6 that was done at Hamm mine. Do you 7 recall that? 8 A. I recall drilling at Hamm. 9 I need to look at the dates. 10 Q. And I'm not asking for 11 specific dates. I'll represent it's 12 after the Hammondsville exploration. 13 Do you recall that? 14 A. I recall drilling at Hamm. 15 Q. Okay. And did you look at 16 those drill cores? 17 A. I believe I did. 18 Q. Let me show you what I'm 19 marking as Exhibit Number 27. 20 (Document marked for 21 identification as Exhibit 22 Poulton-27.) 23 BY MS. O'DELL: 24 Q. I've handed you a memorandum</p>	<p style="text-align: right;">Page 281</p> <p>1 instance two. There was not only 2 Argonaut, but in the Hamm mine there was 3 chloritic dikes that occurred within the 4 talc deposit, correct? 5 A. Within the deposit. You 6 have to put these into the context of the 7 edges of the deposit and what was going 8 to be minable ore versus waste. 9 Q. They can also occur within 10 the talc deposit, true, within the talc 11 as we saw for Argonaut? 12 A. Well, it can be within the 13 talc and still not be in a minable zone 14 within the talc. 15 Q. Then you look at 92-2 and 16 then Hole 92-3 and you also see chloritic 17 dikes that occur within those drill 18 cores, correct? 19 A. Yes. And they are actually 20 coded separately from the ore. 21 Q. They are identified as 22 chloritic dikes, true? 23 A. They are identified as 24 chloritic dikes, and the ore code for</p>

<p style="text-align: right;">Page 282</p> <p>1 them is different than the -- the -- the 2 rock code is different than the minable 3 ore. 4 Q. Okay. And then if you'll 5 turn over to Page 6 of the memo, you'll 6 see that core samples were taken to the 7 Columbia mill and -- and tested. 8 Do you see that? 9 A. First paragraph? 10 Q. Yes. 11 A. Yes. 12 Q. And the sample that you'll 13 see at the end of that paragraph was then 14 pulverized to pass 325 mesh and tested 15 for talc content, brightness, and the 16 presence of arsenic and amphibole. 17 Do you see that? 18 A. Yes. 19 Q. If you'll look down further 20 to the fourth paragraph, it says, middle 21 of the paragraph, "In the pit, arsenic 22 was observed as oxidized coatings on 23 fractured surfaces." 24 Do you see that?</p>	<p style="text-align: right;">Page 284</p> <p>1 of this campaign. 2 Q. If you'll turn back to the 3 first page, Dr. Poulton, second 4 paragraph, this document states that 5 "fibrous amphiboles, actinolite, were 6 observed only within the chloritized 7 mafic dikes extending into places a 8 couple of inches into the contacting talc 9 ore." 10 Do you see that? 11 A. I see that sentence. 12 Q. So the chloritic dikes 13 were -- did occur in the talc ore and, 14 according to this document, they 15 contained fibrous actinolite, true? 16 A. So it says they extended a 17 couple of inches into the contacting talc 18 ore which doesn't mean that they're 19 necessarily going to be in a minable 20 block. 21 Q. But they are in the talc ore 22 nonetheless, correct? 23 A. They -- they are at the edge 24 of the talc ore.</p>
<p style="text-align: right;">Page 283</p> <p>1 A. Not yet. 2 Q. Fourth paragraph. Midway 3 down. 4 A. Okay. 5 Q. "In the pit, arsenic was 6 observed"? 7 A. Yes, I see it. 8 Q. And then -- then you go on 9 down to the next paragraph and it talks 10 about "XRD scanning did not reveal the 11 presence of amphibole in the drill core." 12 Do you see that? 13 A. I see that sentence. 14 Q. And, in fact, the portions 15 of the core that contained amphibole were 16 not sampled, true? 17 A. There is a companion 18 document for this that says that anything 19 that contains amphibole is going to be 20 wasted. 21 Q. They were not -- the 22 material containing amphiboles was not 23 sampled for purposes of testing, true? 24 A. It was not sampled as part</p>	<p style="text-align: right;">Page 285</p> <p>1 Q. In fact, it says they extend 2 into that talc ore in places? 3 A. A couple of inches. 4 Q. Your analysis of the 5 selective mining that took place within 6 Vermont is based on your review of the 7 core drilling that was done, correct? 8 A. Core drilling was part of 9 that. 10 Q. And what years of core 11 drilling support -- or are you relying on 12 to support your opinions? 13 A. I have a -- we're talking 14 about Argonaut now? 15 Q. Any of the mines. 16 A. So we can -- we can talk 17 about Argonaut. I referenced a document 18 that had actually several thousand 19 samples from drilling in it. And I also 20 looked at the mine -- block models that 21 were described in reports. 22 Q. Of those periods of -- of 23 drilling, what would you say were the 24 most comprehensive, you know, drilling</p>

<p style="text-align: right;">Page 286</p> <p>1 efforts in terms of the different years?</p> <p>2 A. I would have to look at the</p> <p>3 documents. Off the top of my head I</p> <p>4 don't remember all the years and how many</p> <p>5 holes.</p> <p>6 Q. Would you agree with me that</p> <p>7 the 1998 drilling campaign was the -- was</p> <p>8 the most comprehensive that was</p> <p>9 undertaken in?</p> <p>10 A. I'd -- I'd want to confirm</p> <p>11 that.</p> <p>12 Q. You don't remember as you're</p> <p>13 sitting here today?</p> <p>14 A. As I'm sitting here without</p> <p>15 looking at the document, I don't.</p> <p>16 Q. In terms of the most</p> <p>17 reliable and comprehensive drilling that</p> <p>18 was done at any of the talc mines, not</p> <p>19 limiting it to Argonaut. It could be</p> <p>20 Hamm, Hammondsville, or Argonaut, what</p> <p>21 was the most comprehensive and reliable</p> <p>22 core drilling campaign that was done?</p> <p>23 Can you say that?</p> <p>24 A. What -- what do you mean by</p>	<p style="text-align: right;">Page 288</p> <p>1 Q. Let's stick with Argonaut.</p> <p>2 A. At Argonaut? Again, I would</p> <p>3 have to go back and look at how many</p> <p>4 different drilling campaigns and how many</p> <p>5 holes.</p> <p>6 Q. In terms of your report, is</p> <p>7 there one drilling campaign that you</p> <p>8 relied on more than others?</p> <p>9 A. I don't know that I can say</p> <p>10 there was one campaign more than another,</p> <p>11 again without having the data all in</p> <p>12 front of me.</p> <p>13 Q. You say on Page 20 that</p> <p>14 there were -- of your report, that</p> <p>15 approximately 2500 feet of core was</p> <p>16 drilled in 1998.</p> <p>17 Do you see that?</p> <p>18 A. I see that.</p> <p>19 Q. And -- and you talk in terms</p> <p>20 of which holes were drilled and the --</p> <p>21 how far apart and -- and so forth.</p> <p>22 Do you see that?</p> <p>23 A. I -- I -- yes, I see that</p> <p>24 I'm referencing the Figure 3 I believe.</p>
<p style="text-align: right;">Page 287</p> <p>1 comprehensive and reliable?</p> <p>2 Q. Well, planned sufficiently</p> <p>3 so that the drill core holes were not too</p> <p>4 far apart, that it was adequate -- the</p> <p>5 cores were adequately sampled.</p> <p>6 Do you find that there was</p> <p>7 any drilling that was more comprehensive</p> <p>8 than another?</p> <p>9 A. So these are not -- the --</p> <p>10 the mine is like a living engineering</p> <p>11 project. So there's not a static, we</p> <p>12 will define all of this and it's -- it's</p> <p>13 done. You constantly add information to</p> <p>14 the mine model. I can't say that there</p> <p>15 is one year where the drilling was</p> <p>16 somehow perfect, in other years it was</p> <p>17 imperfect, without looking at each of the</p> <p>18 drilling campaigns and what specifically</p> <p>19 they were trying to accomplish and what</p> <p>20 information they were adding to their</p> <p>21 knowledge base.</p> <p>22 Q. How many campaigns were</p> <p>23 undertaken at Vermont?</p> <p>24 A. At all of Vermont or --</p>	<p style="text-align: right;">Page 289</p> <p>1 Q. Okay. And Figure 3 is on</p> <p>2 Page 22 of your report, correct?</p> <p>3 A. Yes.</p> <p>4 Q. And if you look at Figure 22</p> <p>5 in your report, this is a depiction, a</p> <p>6 drawing of the drill holes that were</p> <p>7 drilled in Argonaut, correct?</p> <p>8 MR. CHACHKES: Figure 22?</p> <p>9 THE WITNESS: You said</p> <p>10 Figure 22?</p> <p>11 MS. O'DELL: I said -- I was</p> <p>12 trying to say Figure 3.</p> <p>13 THE WITNESS: Okay.</p> <p>14 MS. O'DELL: That's what I</p> <p>15 meant.</p> <p>16 BY MS. O'DELL:</p> <p>17 Q. That's what you referred to,</p> <p>18 correct?</p> <p>19 A. Yes.</p> <p>20 Q. And so -- I'm on Page 22.</p> <p>21 That's what I was -- Page 22, Figure 3.</p> <p>22 A. That's...</p> <p>23 Q. That's what I was trying to</p> <p>24 say, but if I didn't say that correctly.</p>

<p style="text-align: right;">Page 290</p> <p>1 Do you see that?</p> <p>2 A. I see the figure.</p> <p>3 Q. And that's the -- the</p> <p>4 drilling program that you relied on in</p> <p>5 large measure to discuss selective</p> <p>6 mining, correct?</p> <p>7 A. I can't say that I relied on</p> <p>8 this in large measure. It was one of the</p> <p>9 pieces of information I used.</p> <p>10 Q. You relied on it in reaching</p> <p>11 your opinions regarding selective mining,</p> <p>12 true?</p> <p>13 A. It -- it was part of my</p> <p>14 information.</p> <p>15 Q. The -- looking at Figure 3,</p> <p>16 the parallel lines across the figure, let</p> <p>17 me just -- if you'll --</p> <p>18 MS. O'DELL: If I can have</p> <p>19 the Elmo.</p> <p>20 BY MS. O'DELL:</p> <p>21 Q. These parallel lines, these</p> <p>22 blocks if you will, they are in blocks of</p> <p>23 100 feet, correct?</p> <p>24 A. This may be a local mine</p>	<p style="text-align: right;">Page 292</p> <p>1 Q. And so it would be fair to</p> <p>2 say that the data from each hole is used</p> <p>3 to extrapolate the material between the</p> <p>4 holes, true?</p> <p>5 A. Not solely, because you also</p> <p>6 have blast hole drills and you have</p> <p>7 in-fill drilling.</p> <p>8 Q. That would be one of the</p> <p>9 primary mechanisms by which you estimate</p> <p>10 or extrapolate what is actually present</p> <p>11 between the drill core holes?</p> <p>12 A. So you create a drill</p> <p>13 statistical model based on all your</p> <p>14 drilling and geological data. And from</p> <p>15 that, you can map the support of one set</p> <p>16 of data to another set of data. That's</p> <p>17 the basics -- basics of geostatistics.</p> <p>18 Q. And it's a model. It's not</p> <p>19 necessarily actual data on what's there.</p> <p>20 It's a model of what's estimated to be</p> <p>21 there, correct?</p> <p>22 A. It is a model.</p> <p>23 Q. In a geostatistical analysis</p> <p>24 like this, is 500 feet a appropriate</p>
<p style="text-align: right;">Page 291</p> <p>1 coordinate system. And I don't know what</p> <p>2 the scale is, once this has been</p> <p>3 reproduced.</p> <p>4 Q. Okay. So you don't know the</p> <p>5 scale for this particular figure?</p> <p>6 A. I'm -- I'm estimating it.</p> <p>7 Q. What is your estimate?</p> <p>8 A. I can't -- I can't read the</p> <p>9 numbers on this particular one. I think</p> <p>10 I estimated that these holes were roughly</p> <p>11 100 feet apart perhaps.</p> <p>12 Q. And when you mean -- you're</p> <p>13 referring to the holes, you are talking</p> <p>14 about these lines actually depict drill</p> <p>15 cores, correct?</p> <p>16 A. They represent the drill</p> <p>17 holes --</p> <p>18 Q. Correct.</p> <p>19 A. -- projected to a horizontal</p> <p>20 plane.</p> <p>21 Q. Yes. And in many instances,</p> <p>22 those holes are anywhere from 100 to as</p> <p>23 many as 150 feet apart, correct?</p> <p>24 A. Could be.</p>	<p style="text-align: right;">Page 293</p> <p>1 distance in order to accurately estimate</p> <p>2 what material is there?</p> <p>3 A. It depends on what you're</p> <p>4 actually trying to estimate. You may</p> <p>5 just be looking for an edge of something.</p> <p>6 You may be looking for a particular</p> <p>7 structure.</p> <p>8 Q. Let me ask you. I think we</p> <p>9 previously marked this, 2008 annual</p> <p>10 report for mineral resource and ore</p> <p>11 reserve estimates of the Argonaut mine.</p> <p>12 Do you see that?</p> <p>13 MR. CHACHKES: You said 25</p> <p>14 or 26?</p> <p>15 MS. O'DELL: No. It looks</p> <p>16 like this.</p> <p>17 MR. CHACHKES: I don't think</p> <p>18 we have it.</p> <p>19 MS. O'DELL: I'll mark it</p> <p>20 Exhibit 28.</p> <p>21 (Document marked for</p> <p>22 identification as Exhibit</p> <p>23 Poulton-28.)</p> <p>24 BY MS. O'DELL:</p>

<p style="text-align: right;">Page 294</p> <p>1 Q. Have you seen that document 2 before? 3 A. Yes. 4 Q. And on Page 26 of your 5 report, you reference this document, 6 true? 7 A. Could you give me paragraph? 8 Q. The second paragraph from 9 the bottom. 10 A. Krekeler improperly assumes? 11 Q. Yes. And you say he 12 properly assumes that only drilling at a 13 core density of 50 to 100 feet on a 14 square grid pattern covering the entire 15 ore body would allow for a selective -- 16 effective selective mining. 17 MR. CHACHKES: You said 18 properly, when you meant to say 19 improperly. 20 MS. O'DELL: I think I said 21 improperly. But I may not have 22 been clear. 23 BY MS. O'DELL: 24 Q. You write he improperly</p>	<p style="text-align: right;">Page 296</p> <p>1 Q. And this is an evaluation of 2 the ore deposit at Argonaut? 3 A. At Argonaut. 4 Q. And it contains not only 5 data collected in 2008, but it analyzes 6 data that had been collected in prior 7 drill core programs, correct? 8 A. Yes. 9 Q. And so there is data from 10 the time period during which talc was 11 being sourced to Johnson & Johnson within 12 this document, correct? 13 A. I would have to confirm 14 that. But I believe that to be true. 15 Q. And that data is relevant to 16 the talc that was being mined and 17 supplied to J&J, true? 18 A. I would have to confirm 19 that. 20 Q. And provided the data was 21 before 2003, in your mind, that would be 22 relevant data, correct? 23 A. If it was before 2003. 24 Q. And in fact, to a degree,</p>
<p style="text-align: right;">Page 295</p> <p>1 assumes that drilling at core density of 2 50 to 100 feet on a square grid pattern 3 covering the entire ore body would allow 4 effective selective mining. 5 A. Yes. That's what I wrote. 6 Q. And that's your opinion, 7 right? 8 A. That's my opinion. 9 Q. And you rely on Exhibit -- 10 what we have marked as Exhibit 28, and 11 it's Bates number 441340, correct? 12 A. That is one of the pieces of 13 information that I used as an example. 14 Q. And this was written in 15 2008, correct? 16 A. Yes. 17 Q. And that's an appropriate -- 18 that would be an appropriate reference to 19 evaluate the talc deposits at Argonaut, 20 true? 21 A. So -- so 2008 they were no 22 longer producing talc for Johnson & 23 Johnson. I referenced this report as an 24 example of a mine model.</p>	<p style="text-align: right;">Page 297</p> <p>1 the data was collected after 2003 but 2 dealt with the same ore bodies, it would 3 also have relevance, true? 4 A. You might have to explain 5 your question to me. 6 Q. I think it's clear. That if 7 data that was collected after 2003, but 8 relates to the same ore body that was 9 used to source Johnson & Johnson talc, 10 it's also relevant data? 11 A. And so what data would that 12 be that you would be referring to? 13 Q. It could be certain core 14 drill information. It could be other 15 sampling information, correct? 16 A. So you could certainly 17 refine your model. I guess I am confused 18 about the timing of certificates of 19 analysis that are sent to J&J. 20 Q. I didn't mention 21 certificates of analysis to J&J. I said 22 there's data in this document regarding 23 2002 drilling, for example, that would be 24 very relevant to the talc that was sold</p>

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1 to J&J during that time period, correct?

2 A. I guess my answer would be

3 it just depends on what we're talking

4 about.

5 Q. The drilling that was done

6 in 2002 at Argonaut provides data

7 regarding the deposit that is relevant

8 for the material and constituents

9 contained in Argonaut's deposit true?

10 A. So you're asking if holes

11 drilled in 2002 relate to --

12 Q. They're relevant?

13 A. Are relevant to --

14 Q. The issues that we're

15 dealing with in this case.

16 A. So because you drill and

17 produce your model in advance of mining,

18 holes that you drill in 2002 might not

19 actually be relevant until much, much

20 later.

21 Q. Let me ask you this

22 question. Did this report evaluate

23 previous core drilling that had been done

24 at the Argonaut mine?

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1 A. I'd have to go back and look

2 at it.

3 Q. Do you remember as you're

4 sitting here?

5 A. As I'm sitting here I could

6 not confirm what years this includes.

7 Q. If you'll turn to Page 14 of

8 the document. Do you see at the bottom

9 of the Page 3.3 data validation in QA and

10 QC?

11 A. Yes.

12 Q. It's talking about drilling

13 performed at the Argonaut mine in

14 previous years.

15 Do you see that?

16 A. I see where it says over 300

17 drill hole datasets were found.

18 Q. It goes on to say, "Found

19 without complete geology logs, no collar

20 data, survey data or inconsistent and

21 unrealistic data. All of these 300 drill

22 holes were drilled during the 1990s with

23 very poor data collection and retention.

24 None of these drill holes were used in

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1 the construction and estimate of either

2 the 2002 or the 2007 model.

3 Did I read that correctly?

4 A. You read that correctly.

5 Q. So the 1998 data that you

6 rely on in your report was deemed

7 essentially unreliable and unusable by

8 Rio Tinto in 2008, correct?

9 MR. CHACHKES: Objection.

10 THE WITNESS: No. That's I

11 believe misstating what these

12 drill holes may actually

13 represent.

14 BY MS. O'DELL:

15 Q. It goes on to say, the

16 historic drill data was checked for

17 accuracy, frequently the assay and logs

18 at geologic intervals did not coincide.

19 Do you see that?

20 A. Yes.

21 Q. In some cases, the logged

22 rock height was not consistent with assay

23 data.

24 Do you see that? First

Page 301

1 sentence of the next paragraph.

2 A. Yes.

3 Q. And so the evaluation of the

4 drilling that was done at Argonaut in the

5 1990s, was essentially determined to be

6 of poor quality and not relied on in this

7 model, correct?

8 A. So it's relevant to what --

9 the context is, can you take those drill

10 hole data that were based on the numbers

11 of them, most likely blast hole data that

12 were used for ore control at the time,

13 and are they relevant to put into a new

14 computer model. That's my interpretation

15 of this document.

16 Q. But yet -- and for this

17 model, they rejected that data and did

18 not rely on it, the 1990s drill core

19 data, correct?

20 A. At least at the time this

21 document is drafted.

22 Q. That's what it states?

23 A. That's what it's stating at

24 the time of this draft.

<p style="text-align: right;">Page 302</p> <p>1 Q. You mentioned blast hole 2 samples? 3 A. Yes, I did. 4 Q. Have you seen any documents 5 or data that document testing of blast 6 hole samples? 7 A. I would have to look and see 8 if there were any mentions. 9 Q. I'm talking about specific 10 test results from blast holes. 11 A. Yeah, and I -- and I would 12 have to look and see if I saw any data. 13 Q. Do you recall as you're 14 sitting here today, that data? 15 A. I don't recall with the 16 amount of data I've looked at. 17 Q. You talk a lot in your 18 report about the -- the block models and 19 creating block models for deposits that 20 identify particular segments of talc 21 versus other material. 22 A. Yes. 23 Q. And let me ask you if you 24 wouldn't mind. We marked the literature</p>	<p style="text-align: right;">Page 304</p> <p>1 different methodologies for estimating 2 the amount of ore in a particular 3 deposit, true? 4 A. Yes. 5 Q. And it describes data 6 collection, geologic interpretation, it 7 goes through some statistics, et cetera, 8 correct? 9 A. Yes. 10 Q. And on Page 212 of Noble, 11 it -- right here, I don't know if you can 12 see -- describes certain common problems 13 that are associated with block models 14 such as this, correct? 15 A. Some. 16 Q. It says, "The most common 17 problem with geometric methods is that 18 they may imply more selective mining that 19 may be achieved by the mining method." 20 In other words, the model 21 may not match what's going on in the 22 actual real world mine, true? 23 A. So I would actually need to 24 see the article and the context of what</p>
<p style="text-align: right;">Page 303</p> <p>1 and excerpts of books that you relied on. 2 If you wouldn't mind, Dr. Poulton, if I 3 could have that, because I don't have a 4 copy of one of the articles. 5 Specifically the Noble article. 6 Do you recall that? 7 A. I believe so. 8 Q. And in Noble you describe 9 certain theories or methodology regarding 10 block models, true? 11 A. We can look at Noble. 12 Q. And the Noble reference that 13 we're referring to is a chapter in a 14 mining engineering book entitled "Mineral 15 Resource Estimation." 16 Fair? 17 A. I believe so. 18 Q. And because we only have one 19 copy, I'll put it up on the Elmo so we 20 can look together. 21 So this is the reference 22 that you relied on, correct? 23 A. Yes. 24 Q. And Noble goes through</p>	<p style="text-align: right;">Page 305</p> <p>1 came before this. 2 Q. It goes on to say, "The 3 results from estimating the resource from 4 samples, the size of the drill hole, 5 but" -- sorry, let me read that again. 6 "This results from 7 estimating the resource from samples the 8 size of a drill hole but mining larger, 9 less selective volumes." 10 Did I read that correctly? 11 A. You read it correctly. 12 Q. "High grade blocks usually 13 include lower grade material when they 14 are mined and low grade blocks usually 15 include some higher grade material." 16 Did I read that correctly? 17 A. Yes. 18 Q. "The resulting mined grades 19 are different from the predicted 20 distribution for cutoff grades below the 21 average grade of the deposit, the mined 22 grade will be lower and the tonnage will 23 be higher." 24 Did I read that correctly?</p>

<p style="text-align: right;">Page 306</p> <p>1 A. Yes.</p> <p>2 Q. "If the cutoff grade is</p> <p>3 significantly higher than the average</p> <p>4 grade of the deposit however, both the</p> <p>5 mined grade and the tonnage can be lower,</p> <p>6 resulting in severe overestimation of</p> <p>7 contained metal."</p> <p>8 Do you see that?</p> <p>9 A. Yes, I saw that.</p> <p>10 Q. And -- so in other words,</p> <p>11 the model and what's predicted to be in</p> <p>12 the mine and what's predicted to be</p> <p>13 actually extracted may -- may not act --</p> <p>14 MS. O'DELL: Excuse me.</p> <p>15 Thank you. You see all my notes.</p> <p>16 THE WITNESS: Oh great.</p> <p>17 MR. CHACHKES: It's over for</p> <p>18 you.</p> <p>19 MS. O'DELL: Well, there you</p> <p>20 go. I made it a long time, so</p> <p>21 hopefully I skip.</p> <p>22 BY MS. O'DELL:</p> <p>23 Q. But the model and what's</p> <p>24 predicted to be mined from the deposit</p>	<p style="text-align: right;">Page 308</p> <p>1 there. You correct. You mine more. You</p> <p>2 correct so your model becomes more and</p> <p>3 more sophisticated over time.</p> <p>4 Q. So the answer to my</p> <p>5 question, what's -- what's in the model</p> <p>6 and what's happening in the mine may not</p> <p>7 match. The answer to my question is yes,</p> <p>8 that is true?</p> <p>9 A. I think we're talking about</p> <p>10 different time scales and different uses</p> <p>11 of the model.</p> <p>12 So keep in mind the model is</p> <p>13 not -- I've -- I've built this rigid</p> <p>14 thing that can never change. It</p> <p>15 constantly improves as we gather more</p> <p>16 information and --</p> <p>17 Q. What's the first mine model</p> <p>18 that you saw related to any of the</p> <p>19 Vermont talc mines, what's the date on</p> <p>20 that?</p> <p>21 A. 2002 would come to mind.</p> <p>22 There might have been something sooner</p> <p>23 than that. But I believe I saw 2002.</p> <p>24 Q. No mine models for those</p>
<p style="text-align: right;">Page 307</p> <p>1 may not match what actually is removed by</p> <p>2 the people on the ground in the equipment</p> <p>3 removing the material, true?</p> <p>4 A. So we have to be careful,</p> <p>5 because the section that you just quoted</p> <p>6 in that article was potentially leading</p> <p>7 up to more sophisticated methods that</p> <p>8 lead to a more accurate mine model.</p> <p>9 So I think that we can't</p> <p>10 just take one paragraph out of context</p> <p>11 and then draw the conclusion that the</p> <p>12 model is inaccurate.</p> <p>13 Q. Well, let me -- let me just</p> <p>14 ask in a general way. You can have a</p> <p>15 model of what's in the deposit, the ore</p> <p>16 that -- that is designated to be removed.</p> <p>17 And the truth of the matter is, that</p> <p>18 model may or may not match what's</p> <p>19 actually going on in the mine itself,</p> <p>20 true?</p> <p>21 A. That's why you constantly</p> <p>22 reconcile the two, so it's a -- it's a</p> <p>23 learning process.</p> <p>24 You start. You see what's</p>	<p style="text-align: right;">Page 309</p> <p>1 mines in the 1970s, 1980s, or up until,</p> <p>2 let's say, 1999. True?</p> <p>3 A. No, I wouldn't say that</p> <p>4 there's no models. It depends on whether</p> <p>5 we are talking about paper based, even</p> <p>6 physical 3D models versus computer</p> <p>7 models.</p> <p>8 Q. No, there were no computer</p> <p>9 models in the '90s for Argonaut, true?</p> <p>10 A. I don't know that that's</p> <p>11 true.</p> <p>12 Q. The -- in terms of -- of the</p> <p>13 mining process itself, and I'm not</p> <p>14 talking about a computer model, I'm</p> <p>15 talking about what happens within the --</p> <p>16 the open pit itself. The selective</p> <p>17 mining process is dependent on, in large</p> <p>18 measure, on the visual inspection of an</p> <p>19 equipment operator, true?</p> <p>20 A. I would say that there are</p> <p>21 many inputs to selecting what you're</p> <p>22 mining for delivery to a particular</p> <p>23 stockpile for a particular use or -- or</p> <p>24 wasting it.</p>

<p style="text-align: right;">Page 310</p> <p>1 Q. And that decision on an 2 hourly by hourly basis is made by the 3 person who is running the excavator 4 that's removing the material, true? 5 A. Not necessarily. You have 6 other input to what that operator is 7 doing. 8 Q. But it can be, correct? 9 A. That would be a 10 hypothetical. 11 Q. No, that's real world, in 12 fact. 13 For an excavator operator 14 who is loading trucks and making a 15 decision of whether material is going to 16 go to West Windsor for cosmetic talc 17 versus Ludlow for industrial talc, that's 18 going to be made when that operator is 19 extracting the material with an excavator 20 and placing it in a truck, true? 21 A. So the equipment operator is 22 excavating the material and placing it in 23 a truck. 24 That material may have been</p>	<p style="text-align: right;">Page 312</p> <p>1 engineer or a mine manager, but for that 2 bucket-by-bucket decision, that's going 3 to be the excavator operator, true? 4 A. So your question is, is the 5 excavator operator the sole person making 6 that decisions? 7 Q. That's not what I said. 8 A. Okay. Because you -- 9 Q. He's going to be one of the 10 people who is making the decision about 11 whether material is going to be 12 beneficiated or wasted? 13 A. So there's a distinction 14 between making the decision as opposed to 15 executing the decision. 16 Q. In terms of -- of actually 17 loading a particular truck that's going 18 to go to a particular mill -- 19 A. Yes. 20 Q. -- that's going to be the 21 excavator operator, correct? 22 A. No, not necessarily. So, 23 so, basically, based on what you know 24 you're mining and where it's going to go,</p>
<p style="text-align: right;">Page 311</p> <p>1 already marked by the geologist, the 2 mining engineer, as to what material that 3 is and where that truck is routed to. 4 Q. May or may not have been 5 premarked, correct? 6 A. So premarked as opposed to 7 other ways of delineating it. 8 Q. And in terms of -- of that 9 process, the determination of what's 10 going to be in a talc mine, cosmetic talc 11 versus industrial talc, is going to be 12 decided at the site of extraction? 13 A. I would say not solely. 14 Q. But in large measure? 15 A. I can't define what in large 16 measure would be. 17 Q. It -- that's part of the 18 decisionmaking process, true? 19 A. It's one of the inputs. 20 Q. The excavator operator is 21 going to be determining what material is 22 going to be beneficiated versus what's 23 going to be wasted. You might have 24 gotten input from -- of a geology</p>	<p style="text-align: right;">Page 313</p> <p>1 the -- the truck driver who is ultimately 2 taking that material to its destination 3 is told where that truck should go. That 4 could be based on a dispatching system. 5 It could be based on today everything is 6 going to Stockpile 54. But there's a 7 difference between making a decision 8 versus executing the decision. 9 Q. Well, that may be true. I 10 wouldn't -- won't dispute that. But 11 executing the -- the decision is sort of 12 where the proof is in the pudding, 13 correct? 14 I mean, in terms of that 15 excavator operator delineating the ore 16 that should go for cosmetic talc, that 17 person is going to be looking at 18 potentially boundaries that are drawn by 19 a geologist, correct? 20 A. Yes. 21 Q. Or a mine manager, not 22 necessarily a geologist? 23 A. Yes. Yes. 24 Q. Those boundaries, as</p>

<p style="text-align: right;">Page 314</p> <p>1 material is removed, can be disrupted, so 2 it's more difficult to tell where those 3 boundaries occur, true? 4 A. Mm-hmm, could be. 5 Q. And you got, in a pit 6 situation you're going to have dust, 7 true, that may impinge on the 8 identification of a particular material? 9 A. I would not think that dust 10 in this situation is going to obstruct 11 your visibility. 12 Q. You've got snow in certain 13 parts of -- certain time periods of the 14 year, correct? 15 A. You do have snow. 16 Q. You could have rain and 17 other weather elements that impact the 18 person who is trying to remove certain 19 ore? 20 A. Usually wet makes things 21 easier to identify. 22 Q. Maybe, maybe not. Depends 23 on the mud, true? 24 A. I wouldn't say the mud,</p>	<p style="text-align: right;">Page 316</p> <p>1 approximately how far from the end of the 2 bucket on the excavator? 3 A. It very much depends on the 4 excavator. 5 Q. And -- and you have 6 described an excavator that is 7 appropriate for selective mining in the 8 context of -- of Vermont talc as having a 9 4.7-yard bucket, correct? 10 A. That's the bucket that they 11 have described having. 12 Q. And that's the bucket they 13 were using? 14 A. Yes. 15 Q. And the location of the 16 operator in front of the controls in the 17 seat of the machine to the end of the 18 bucket would be anywhere from 25 to 19 35 feet, correct? 20 A. It very much depends on 21 where the machine is relative to the 22 excavator arm. It could be closer. 23 Q. And it -- it could be 24 farther?</p>
<p style="text-align: right;">Page 315</p> <p>1 but -- but certainly if you take a rock 2 sample and you make it wet, a lot of 3 times the identification is much easier. 4 Q. But we're not talking about 5 rock samples. We're talking about 6 somebody in a piece of equipment. 7 A. No, I'm -- I'm still saying 8 the rock face when wet can be far more 9 distinctive than when dry. 10 Q. But not the floor of the pit 11 in -- not the floor of the pit in many 12 instances -- 13 A. Well, the floor of the pit 14 we're generally driving on. 15 Q. Not necessarily. It depends 16 on if you've got -- you've blasted and 17 you've got material that's been blasted 18 and it's being prepared to be excavated 19 and -- and trucked to the mill. 20 A. So you're talking about a 21 muck pile on a bench? 22 Q. Maybe, maybe not. Could be. 23 But let me just ask this 24 question. An excavator operator is</p>	<p style="text-align: right;">Page 317</p> <p>1 A. Depends on the reach of the 2 boom. 3 Q. Yes. 4 A. You generally don't want to 5 lift a lot of things from a great 6 distance because of the stress on the 7 boom. 8 Q. Correct. But the -- a good 9 estimate of the distance would be 10 somewhere between 25 and 35 feet, 11 correct? 12 A. I don't know that I could 13 say that that's an estimate of the 14 distance between the operator and what 15 that person is digging. 16 Q. How many pounds of material 17 would a 4.7-cubic-yard bucket hold? 18 A. So we would have to do some 19 math late in the day here. I believe a 20 ten-foot by ten-foot by ten-foot block of 21 rock was roughly 75 tons. I'd have to go 22 through and calculate bank cubic yards 23 and figure out what would actually fit in 24 an excavator of that size and then figure</p>

<p style="text-align: right;">Page 318</p> <p>1 out what that weight would be. I don't 2 think I'm prepared to do that math right 3 now. 4 Q. And you don't know that from 5 your information in -- in the mining 6 field? 7 MR. CHACHKES: Objection. 8 THE WITNESS: I don't know 9 that from my information in the 10 mining field? No, I just can't 11 calculate it right now. 12 BY MS. O'DELL: 13 Q. Would it be fair to say that 14 3,000 pounds per yard is a reasonable 15 estimate of the amount of material 16 that -- that would be in one yard of a 17 bucket? 18 A. 3,000 pounds per yard of 19 talc? 20 Q. Yes. 21 A. I'd have to do some 22 calculations. 23 Q. So assume for me, for 24 purposes of this discussion, that a yard</p>	<p style="text-align: right;">Page 320</p> <p>1 BY MS. O'DELL: 2 Q. Let me ask you this. That 3 15,000 pounds of -- a bucket that can 4 hold 15,000 pounds is hardly a precise 5 instrument from which to identify certain 6 ore and remove only that ore for purposes 7 of cosmetic talc, true? 8 MR. CHACHKES: Objection. 9 THE WITNESS: That would 10 assume that you're always 11 completely filling the entire 12 bucket, which you may not do. 13 BY MS. O'DELL: 14 Q. Let's say it's half, 15 7500 pounds, that's not a terribly 16 precise process by which to selectively 17 mine material, true? 18 MR. CHACHKES: Objection. 19 MR. LOCKE: Objection. 20 THE WITNESS: You could fill 21 it with even less than that. 22 BY MS. O'DELL: 23 Q. For purposes of selective 24 mining, impurities within talc ore may</p>
<p style="text-align: right;">Page 319</p> <p>1 would hold approximately 3,000 pounds and 2 a 4.7 -- 4.7-cubic-yard bucket would hold 3 approximately 15,000 pounds of ore, 4 assume that with me. 5 If there are trace minerals 6 or accessory -- accessory minerals within 7 that talc, it would be impossible to 8 selectively mine that material with any 9 precision, true? 10 MR. CHACHKES: Objection. 11 MR. LOCKE: Objection to 12 form. 13 THE WITNESS: So these 14 impurities don't jump out of the 15 rock face into the muck pile. 16 Again, we've built these 17 models so that we're, for cosmetic 18 grade talc, mining the very best 19 blocks. And I -- I object to the 20 conclusion that there would 21 suddenly be unknown contaminants 22 appearing in the muck pile. 23 MS. O'DELL: Move to strike 24 as nonresponsive.</p>	<p style="text-align: right;">Page 321</p> <p>1 not be apparent to the operator who is 2 removing the material, true? 3 MR. FROST: Objection. 4 THE WITNESS: When you say 5 may not be apparent to the 6 operator? 7 BY MS. O'DELL: 8 Q. Through visual inspection -- 9 A. And this -- 10 Q. -- of the material from the 11 seat of their particular machine. 12 MR. FROST: Objection. 13 THE WITNESS: And this would 14 assume that the operator is 15 incapable of asking for help in 16 identifying what's in the 17 material? 18 BY MS. O'DELL: 19 Q. That's assuming that he or 20 she is not able to identify microscopic 21 amounts of impurities within talc rocks. 22 MR. FROST: Objection. 23 THE WITNESS: So by the 24 definition of microscopic</p>

<p style="text-align: right;">Page 322</p> <p>1 impurities, you're basically 2 saying nobody can identify this. 3 BY MS. O'DELL: 4 Q. If there is tremolite within 5 a talc rock and -- and it's within that 6 rock, and it's 25 to 35 feet away from a 7 machine operator, more likely than not, 8 that is not going to be visible with the 9 naked eye, true? 10 MR. CHACHKES: Objection. 11 THE WITNESS: So I -- I am 12 struggling with sort of the -- the 13 logic of a single tremolite 14 crystal in a pile of rock. 15 BY MS. O'DELL: 16 Q. I didn't say either of those 17 things. I said within a rock that 18 microscopic amounts of tremolite are not 19 going to be visual -- visible to the 20 naked eye. 21 True? 22 A. They may not be visible to 23 the naked eye, but surely they would have 24 been detected in the analysis of the rock</p>	<p style="text-align: right;">Page 324</p> <p>1 back on the record. The time is 2 6:37 p.m. 3 BY MS. O'DELL: 4 Q. Dr. Poulton, following up on 5 the, sort of our discussion that we were 6 having before the break about selective 7 mining. 8 Would you agree with me that 9 excavator operators have an influence 10 over the material that is extracted and 11 mined as ore versus waste? 12 A. When you say influence, what 13 do you mean? 14 Q. They have an impact on the 15 decision of what is determined to be ore 16 versus waste. 17 A. I would say that based on 18 the mine model, the geologic input, the 19 ore versus waste has multiple inputs. I 20 would not say that the excavator operator 21 has necessarily a major influence. 22 But again the excavator 23 operator is probably the person that 24 looks most at the rocks. So again, they</p>
<p style="text-align: right;">Page 323</p> <p>1 in that vicinity. 2 Q. Right. Within -- within the 3 context of core holes driven -- drilled 4 anywhere from 100 to 500 feet apart, 5 fair? 6 A. Well, the geologists are 7 also capable of taking samples from the 8 bench face. So it's not solely drill 9 core. 10 Q. Did you see data for samples 11 taken from the bench face? 12 A. I saw reference to taking 13 grab samples from the bench face. 14 Q. Did you see data? 15 A. I don't know that I saw 16 assay data. 17 MS. O'DELL: Let's take a 18 short break. 19 THE VIDEOGRAPHER: All 20 right. Stand by, please. Remove 21 your microphones. The time is 22 6:04 p.m. Off the record. 23 (Short break.) 24 THE VIDEOGRAPHER: We are</p>	<p style="text-align: right;">Page 325</p> <p>1 execute decisions. How much latitude 2 they have to make decisions, I think we 3 would have to know from mine managers 4 there. 5 Q. And they would have an 6 influence on those decisions, true? 7 A. Influence versus input 8 versus executing a decision, I don't 9 think that's something that I can say 10 from not knowing how they did their 11 day-to-day operations. 12 Q. And so you cannot agree to 13 the word influence? 14 A. I would not agree to the 15 word influence. 16 Q. You cannot agree to the 17 statement that excavator operators have 18 influence on the degree of ore loss or 19 dilution? 20 A. Influence over ore loss or 21 dilution. To the extent that the 22 excavator operator is putting material in 23 trucks to go certain places. Again, I 24 think I need to see some context for all</p>

<p style="text-align: right;">Page 326</p> <p>1 of this just to know what I'm answering. 2 Q. Let me ask you to look at 3 what I'm going to mark as Exhibit 29. 4 This is a July 31, 2006 memo from Ed 5 McCarthy regarding Vermont market. 6 Do you see that? 7 A. Yes. 8 (Document marked for 9 identification as Exhibit 10 Poulton-29.) 11 BY MS. O'DELL: 12 Q. If you'll turn, please, to 13 Page 3 of this document. You see a 14 caption reading "Present Situation." 15 Do you see that? 16 A. I do. 17 Q. And if you'll look at the 18 second sentence, it reads, "It's very 19 critical that care be exercised near the 20 limits of the talc zones as serpentine 21 and arsenic are commonly found there. In 22 theory that ore is segregated by talc 23 content, color, and arsenic content at 24 the mine face, but in actuality, mine ore</p>	<p style="text-align: right;">Page 328</p> <p>1 identification as Exhibit 2 Poulton-30.) 3 MS. O'DELL: I'm one short 4 on this. I'm sorry. 5 MR. CHACHKES: That's fine. 6 Two is fine. 7 BY MS. O'DELL: 8 Q. Do you see this, 9 Dr. Poulton? 10 A. I see this image. 11 Q. Can you identify the -- the 12 minerals in this image? 13 MR. FROST: Objection. 14 THE WITNESS: With no 15 context, no. 16 BY MS. O'DELL: 17 Q. You cannot? 18 A. I -- I don't have any 19 information on size. I don't have any 20 information on hardness, specific 21 gravity. I can't rotate it. I can't use 22 a hand lens to look at it in detail. 23 I'm -- I'm basically just looking at a 24 color image.</p>
<p style="text-align: right;">Page 327</p> <p>1 control is rudimentary and is generally 2 based on post-mill rather than drill hole 3 analysis." 4 Did I read that correctly? 5 A. Yes. 6 MR. LOCKE: Can I ask, is 7 this different from the exhibit 8 you previously -- 9 MS. O'DELL: Yes. 10 MR. LOCKE: One is a 11 handwritten Bates? 12 MS. O'DELL: It's a 13 different document, Tom. 14 MR. LOCKE: I've got two 15 here that are on 730106. 16 MS. O'DELL: I think -- I 17 think that they are different. 18 There is another memo that looks 19 very similar to this. But it's -- 20 it's different. 21 BY MS. O'DELL: 22 Q. Let me ask you to look at 23 what I'm marking as Exhibit 30. 24 (Document marked for</p>	<p style="text-align: right;">Page 329</p> <p>1 Q. If I represent to you that 2 this is a photo of actinolite within 3 talc, would you disagree with that? 4 A. I don't have any information 5 to agree or disagree with that. I don't 6 know what this image is. 7 Q. Cannot identify it? 8 MR. FROST: Objection. 9 THE WITNESS: I can't 10 identify from a picture when I 11 have no information. 12 (Document marked for 13 identification as Exhibit 14 Poulton-31.) 15 BY MS. O'DELL: 16 Q. Let me show you what I'm 17 marking as Exhibit 31. See the caption 18 on this figure, "Large mass, 19 approximately 15 centimeters across of 20 actinolite in talc from the Argonaut 21 quarry. Ludlow, Vermont." 22 Do you see that? 23 A. I see the caption. 24 Q. Do you -- do you have any</p>

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1 basis for disagreeing with that
 2 identification?
 3 MR. FROST: Objection.
 4 THE WITNESS: I don't know
 5 what this figure is from. I don't
 6 know who has identified it. So
 7 again, I -- it's not something I
 8 can touch and see.
 9 BY MS. O'DELL:
 10 Q. Have you any basis to
 11 disagree with that caption?
 12 A. Again, I don't know where
 13 it's from. I don't have any information.
 14 Q. The -- well, you do have
 15 information on page -- or on Exhibit 31,
 16 don't you?
 17 MR. FROST: Objection.
 18 THE WITNESS: Well, I -- I
 19 see a figure caption here. Again,
 20 I don't know who has identified
 21 it. I don't know where this has
 22 come from. So I --
 23 BY MS. O'DELL:
 24 Q. You just --

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1 A. I don't know how I can
 2 identify something with no information.
 3 Q. But you have information
 4 that's provided in caption -- on -- the
 5 caption on Exhibit 31, true?
 6 MR. FROST: Objection.
 7 THE WITNESS: Again, I don't
 8 know where this caption has come
 9 from. I don't know where the
 10 picture has come from. I don't
 11 know what the document is.
 12 BY MS. O'DELL:
 13 Q. And with the information
 14 provided on Exhibit 35 -- 31, you are
 15 unable to identify that -- what that rock
 16 is or state the reasons why it's not
 17 actinolite in talc?
 18 MR. CHACHKES: Objection.
 19 MR. FROST: Objection.
 20 BY MS. O'DELL:
 21 Q. True?
 22 A. I've already stated that I
 23 can't touch it. I can't take
 24 measurements on it. I can't confirm the

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1 identification.
 2 Q. And you would need to touch
 3 it in order to identify the mineral?
 4 MR. LOCKE: Objection.
 5 THE WITNESS: I -- I would
 6 need to be to make measurements on
 7 it.
 8 BY MS. O'DELL:
 9 Q. Let me ask you to turn to
 10 Page 25 your report. And you have it in
 11 front of you?
 12 A. Yes.
 13 Q. And are you looking at
 14 the -- you're -- you're looking at your
 15 copy, not the marked copy of the report,
 16 correct?
 17 A. It's the copy in this
 18 binder.
 19 Q. Okay. I'm going to ask you
 20 to pull out from your stack the copy of
 21 the report that I marked because I want
 22 you to draw on it. It should be --
 23 MR. CHACHKES: I think
 24 Number 1 or 2.

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1 BY MS. O'DELL:
 2 Q. I think it's Number 2. It
 3 should be on the bottom.
 4 A. My report?
 5 Q. Correct.
 6 A. This one?
 7 Q. Yes. All right. If you'll
 8 turn to Page 25. Are you -- are you
 9 there?
 10 A. I am.
 11 Q. You write, "Notice the color
 12 change to distinguish the ore from waste
 13 is easily discernable."
 14 Do you see that?
 15 A. And we are on Page 25?
 16 Q. Correct.
 17 A. I say, "Close-up of the
 18 lamprophyre dikes. Notice the boundaries
 19 are sharp and it is easy to segregate
 20 this material during selective mining."
 21 Q. I think if you'll look on
 22 Figure 6 that you write, "Notice the
 23 color change to distinguish the ore from
 24 waste is easily discernable."

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1 Do you see that?

2 A. Yes.

3 Q. Where is -- I'd like for you

4 to identify the area of ore in this

5 photo.

6 A. So I'm denoting that there

7 is a color change, and based on the

8 document that I -- I took this from, have

9 denoted that -- that the light material

10 is different than the dark material.

11 Q. I would like for you to

12 draw. If you don't -- you're welcome to

13 use my pen or somebody else's pen, what

14 you identify as ore versus waste.

15 A. Well, I can -- I can mark

16 where we have the fault in that material

17 as waste.

18 To -- to go beyond that with

19 a photograph, I think is -- is difficult

20 to do without more context.

21 Q. Can you identify the ore in

22 that photograph, yes or no?

23 A. I would say that it would be

24 difficult again without having more

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1 information.

2 Q. So you cannot, as you're

3 sitting here today, identify the ore

4 that's present in that photograph, true?

5 MR. CHACHKES: Objection.

6 THE WITNESS: I would say

7 again, I would want to have more

8 information before I marked on it.

9 BY MS. O'DELL:

10 Q. So based on the information

11 you have today, and based on the

12 materials you reviewed, you're unable to

13 identify the ore that's depicted in that

14 photograph, true?

15 MR. CHACHKES: Objection.

16 THE WITNESS: I wouldn't say

17 that I'm unable. I would say that

18 I would want to make sure that I

19 did it carefully with more

20 information.

21 BY MS. O'DELL:

22 Q. And you're not able to do

23 that as we sit here in the deposition

24 today, correct?

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1 MR. CHACHKES: Objection.

2 THE WITNESS: At this moment

3 in time.

4 BY MS. O'DELL:

5 Q. If you'll look in your

6 stack, please, Dr. Poulton, for

7 Exhibit 28, which is the 2008 annual

8 report for mineral resources and ore

9 reserves. Do you have that in front of

10 you?

11 A. 28?

12 Q. Yes.

13 A. Yes.

14 Q. Great. If you'll turn to

15 Page 16 of the document. Are you there?

16 A. I am on Page 16.

17 Q. Okay. Top of the page,

18 Doctor, it reads, "Only limited blast

19 hole data was utilized in the

20 construction of the geologic polygons

21 primarily due to the lack of quality

22 control on the blast hole database."

23 Do you see that?

24 A. I see that paragraph.

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1 Q. It says, "The blast hole

2 data could not be confirmed reliable,

3 therefore, was used sparing" --

4 "sparingly."

5 Do you see that?

6 A. I see that sentence.

7 Q. And to the degree that blast

8 hole data is something that is typically

9 relied on, Imerys determined that the

10 data they had was not reliable for

11 purposes of the computer model that was

12 being created for Argonaut, fair?

13 A. Possibly.

14 Q. It's what the document says?

15 A. Well, again the -- the blast

16 hole data can be used to inform the

17 mining that you're doing and that

18 information can also go into the geologic

19 and computer model. So it's not just

20 drill hole data that informs these

21 computer models. There's other geologic

22 information that informs these models.

23 Q. So blast hole data, however,

24 was determined to be unreliable by the

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1 individuals who wrote this annual report,
 2 correct?
 3 MR. CHACHKES: Objection.
 4 THE WITNESS: So again we
 5 have to look at the context of
 6 where this paragraph comes from
 7 and what they are attempting to do
 8 with that particular blast hole
 9 data.
 10 BY MS. O'DELL:
 11 Q. Certainly what they --
 12 certainly what they stated, correct?
 13 A. Not necessarily. Again, we
 14 have to look at the full context of
 15 what's being stated, not just a paragraph
 16 without any context.
 17 Q. That's what that paragraph
 18 stated, correct?
 19 A. Again, I would say context
 20 is very important to understand what's
 21 being said.
 22 Q. Yes or no?
 23 A. I don't think I can say yes
 24 or no to a question that requires

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1 context.
 2 Q. And I don't think this
 3 requires context. That's what that
 4 paragraph stated, correct?
 5 MR. FROST: Objection.
 6 THE WITNESS: No. I would
 7 say based on my background, you do
 8 need context.
 9 BY MS. O'DELL:
 10 Q. I'm not asking you about
 11 your background to be, you know,
 12 respectful, Doctor.
 13 I'm just asking if the
 14 statement in the report was that they
 15 could not confirm the reliability of the
 16 blast hole data, that's what it says.
 17 A. That's what it says, but
 18 it's what it says in the context of other
 19 things that matters.
 20 Q. You were asked -- strike
 21 that. Let me start this way.
 22 You cite in your report, I
 23 believe it's the -- the Noakes 2005. Let
 24 me turn to it on Page 5 of your report.

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1 It's one of your references.
 2 So Page 5 of your report.
 3 Let's see. Noakes 2005.
 4 Do you see that?
 5 A. Yes.
 6 Q. And you give an example
 7 regarding the Three Springs talc mine in
 8 Australia?
 9 A. Yes.
 10 Q. Three Springs is not a
 11 cosmetic talc mine, true?
 12 A. That's my understanding.
 13 Q. It's a mine for industrial
 14 talc, correct?
 15 A. That's my understanding.
 16 Q. You cite Birkhimer on
 17 Page 30 of your report, and you cite
 18 Birkhimer in the last paragraph, and you
 19 are talking about hydraulic excavators.
 20 And you say, "Birkhimer
 21 notes that hydraulic excavators can
 22 selectively mine layers or pockets of
 23 material."
 24 Do you see that?

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1 A. Yes.
 2 Q. Birkhimer, first, is there,
 3 you know, any designation to the size of
 4 the equipment in relation to what was
 5 used at the Argonaut mine?
 6 Let me strike that. Start
 7 again.
 8 Is there any designation of
 9 the size of equipment that is being
 10 referred to in Birkhimer as compared to
 11 the equipment that was used at Argonaut?
 12 A. Could I look at Birkhimer
 13 again?
 14 Q. Sure. In fact, let me just
 15 ask you to look on the screen here so we
 16 can both look.
 17 This is Birkhimer. Do you
 18 see that? Do you recognize that?
 19 A. I believe so.
 20 MR. CHACHKES: Objection.
 21 This is a page from Birkhimer.
 22 BY MS. O'DELL:
 23 Q. Did you rely on anything
 24 else in reaching your opinions in the

Page 342

1 Birkhimer article?

2 A. I was focused on hydraulic

3 excavators as opposed to other kinds of

4 equipment.

5 Q. And -- and this is the page

6 that you relied on, fair?

7 A. Yes.

8 Q. Is -- does this refer in any

9 way to talc mining?

10 A. It does not refer to any

11 particular kind of mining if memory

12 serves me.

13 Q. Is there any designation of

14 the size of the equipment that's being

15 used and the precision of its ability to

16 selectively mine?

17 A. In this table it's just

18 comparing three different kinds of

19 loading tools.

20 Q. Do you have any information

21 that would allow you to apply the data

22 contained in this table to the equipment

23 that was used at Argonaut?

24 A. The fact that it's a

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1 hydraulic excavator and not an electric

2 cable shovel would be an example.

3 Q. And that's the only thing,

4 in terms of size of bucket, size of

5 machinery, you don't have any of that

6 data?

7 A. It is the type of equipment

8 that Birkhimer is referring to.

9 Q. And when you say, talking

10 about hydraulic excavators, you are

11 talking about excavators that are

12 typically used in an open pit situation

13 as opposed to a underground mine

14 situation?

15 A. I'm sorry?

16 Q. As opposed to an underground

17 mine situation?

18 A. So you're asking --

19 Q. You're talk -- when you say

20 a hydraulic excavator, you are talking

21 about something that's typically used in

22 an open pit?

23 A. Correct.

24 Q. And, in fact, those types of

Page 344

1 excavators are depicted in some of the

2 photos in your report, hydraulic

3 excavators?

4 A. Yes.

5 Q. You were -- I asked you

6 earlier about -- we had a discussion

7 earlier about some depositions that are

8 on your reliance list.

9 You also list in addition to

10 Dr. Hopkins' deposition, Alice Blount's

11 deposition?

12 A. Yes.

13 Q. Did -- were you provided the

14 entire deposition of Dr. Blount?

15 A. I believe I have the entire

16 deposition.

17 Q. Did you read that

18 deposition?

19 A. I skimmed it.

20 Q. Did you rely on it in

21 reaching your opinions in this case?

22 A. No.

23 Q. Were you provided the

24 deposition of Pat Downey?

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1 A. Yes.

2 Q. How much of that deposition

3 were you provided?

4 A. I believe I have the entire

5 deposition.

6 Q. Were you provided the

7 deposition of -- of Donald Hicks?

8 A. I believe I have one page.

9 Q. And were you provided the

10 depositions of Dr. Krekeler and Dr. Cook?

11 A. Yes.

12 Q. Were you provided those

13 depositions in their entirety?

14 A. I believe so.

15 Q. You cited the -- the Miller

16 article. We talked about that earlier.

17 The -- the reference that was authored by

18 Roger Miller. Do you recall that?

19 A. Is that -- can you give me

20 the reference again?

21 Q. It's Miller.

22 A. Okay. In?

23 Q. Do you recall us looking at

24 that earlier?

<p style="text-align: right;">Page 346</p> <p>1 A. Perhaps.</p> <p>2 Q. If you'll recall, and I'll</p> <p>3 just put it under -- we marked as an</p> <p>4 exhibit, this was entitled "Talc mining</p> <p>5 in Vermont: The application of</p> <p>6 continuous machines." Roger Miller?</p> <p>7 A. Yes.</p> <p>8 Q. It is a presentation at a</p> <p>9 fall meeting in October of 1984, correct?</p> <p>10 A. So it was presented at the</p> <p>11 fall meeting. I believe there's -- he</p> <p>12 submitted a preprint for this meeting.</p> <p>13 Q. And this is not a</p> <p>14 peer-reviewed publication, correct?</p> <p>15 A. I believe SME preprints</p> <p>16 quite often are peer reviewed. I would</p> <p>17 have to confirm that for that particular</p> <p>18 time period.</p> <p>19 Q. Do -- you don't have -- as</p> <p>20 you're sitting here today, you don't know</p> <p>21 if a presentation in 1984 was peer</p> <p>22 reviewed, correct?</p> <p>23 A. Well, it's written as a</p> <p>24 paper. The presentation would be slides.</p>	<p style="text-align: right;">Page 348</p> <p>1 A. We -- we took 35-millimeter</p> <p>2 photographs and used slide carousels.</p> <p>3 Q. Do you have any -- any</p> <p>4 information as you are sitting here today</p> <p>5 that that was a peer-reviewed</p> <p>6 publication?</p> <p>7 A. I don't for that particular</p> <p>8 time with SME.</p> <p>9 MS. O'DELL: Let's go off</p> <p>10 the record.</p> <p>11 THE VIDEOGRAPHER: Sure.</p> <p>12 The time is 7:03 p.m. Off the</p> <p>13 record.</p> <p>14 (Short break.)</p> <p>15 THE VIDEOGRAPHER: We are</p> <p>16 back on the record. The time is</p> <p>17 7:23 p.m.</p> <p>18 BY MS. O'DELL:</p> <p>19 Q. For the record, I've marked</p> <p>20 as Exhibit 32 a group of binders, I think</p> <p>21 it's six -- five binders brought to the</p> <p>22 deposition which I understand are</p> <p>23 Dr. Poulton's reliance materials in terms</p> <p>24 of the Bates documents that she was</p>
<p style="text-align: right;">Page 347</p> <p>1 So he's -- he's written the paper, he</p> <p>2 gives a presentation based on the paper.</p> <p>3 So I wouldn't characterize his paper as a</p> <p>4 presentation. It was a paper that was</p> <p>5 presented.</p> <p>6 Q. That's what the document</p> <p>7 says, it was a presentation, correct?</p> <p>8 A. Well, that means he</p> <p>9 presented the content of the paper at the</p> <p>10 meeting.</p> <p>11 Q. And -- and it's your</p> <p>12 testimony under oath that he would have</p> <p>13 had slides in 1984 for a presentation to</p> <p>14 the Society of Mining Engineers in</p> <p>15 Colorado?</p> <p>16 A. Well, in 1984 I was using</p> <p>17 slides to give presentations,</p> <p>18 35-millimeter slides.</p> <p>19 Q. Yeah. Not -- well,</p> <p>20 35-millimeter maybe, but not PowerPoint</p> <p>21 slides?</p> <p>22 A. Oh heavens no. No, but</p> <p>23 we -- we took --</p> <p>24 Q. Correct. So let's be clear.</p>	<p style="text-align: right;">Page 349</p> <p>1 provided. That's Exhibit 32.</p> <p>2 (Document marked for</p> <p>3 identification as Exhibit</p> <p>4 Poulton-32.)</p> <p>5 MS. O'DELL: Exhibit 33 --</p> <p>6 MR. CHACHKES: Exhibit 32,</p> <p>7 I'll have to double-check exactly</p> <p>8 what they are. So if they were</p> <p>9 sent to me I haven't reviewed</p> <p>10 them. I think that's what they</p> <p>11 are, so --</p> <p>12 MS. O'DELL: Well, I'll</p> <p>13 identify, just they are Imerys</p> <p>14 Volumes 1 through 3 and J&J</p> <p>15 Reliance Materials 1 and 2.</p> <p>16 MR. CHACHKES: Right.</p> <p>17 That's what the legal assistant</p> <p>18 put on the spine.</p> <p>19 MR. FROST: I was going to</p> <p>20 say. Leigh, the other thing I</p> <p>21 want to put on the record, it</p> <p>22 might not be a complete collection</p> <p>23 of all the reliance materials.</p> <p>24 But it is certainly what we</p>

<p style="text-align: right;">Page 350</p> <p>1 brought with us today to the 2 deposition. 3 MS. O'DELL: To -- in terms 4 of the reliance list that was 5 provided to us listing Bates 6 numbers, is it -- is it -- are 7 y'all representing that that's a 8 different group of documents than 9 what's being disclosed? 10 MR. CHACHKES: No, what I'm 11 saying is I don't know. And we 12 can -- we can talk later about 13 exactly what it is. It's just 14 what my paralegal gave me and 15 that's all I can tell you right 16 now. 17 MR. FROST: I will say it 18 shouldn't be. 19 MS. O'DELL: I understand 20 that's what you're saying, and 21 that doesn't comfort me a whole 22 lot. But I understand. 23 (Document marked for 24 identification as Exhibit</p>	<p style="text-align: right;">Page 352</p> <p>1 A. I don't know that I can 2 ballpark it very accurately. 3 Q. Is it more than 50 hours or 4 less than 50 hours? 5 A. I would estimate more than 6 50. 7 Q. More than 100 hours or less 8 than 100 hours? 9 A. That I don't know. 10 Q. Is it between 50 and 11 100 hours to the best of your knowledge? 12 MR. CHACHKES: Objection. 13 THE WITNESS: Possibly. I 14 don't know. 15 BY MS. O'DELL: 16 Q. And your retention with 17 counsel for J&J was December the 19th, 18 2018, correct? 19 A. That is the date, yes. 20 Q. And that's the date you 21 agreed to serve as an expert? 22 A. Yes. 23 MS. O'DELL: I have nothing 24 further.</p>
<p style="text-align: right;">Page 351</p> <p>1 Poulton-33.) 2 BY MS. O'DELL: 3 Q. Okay. Let me show you what 4 I'm marking as Exhibit Number 33 which is 5 a supplemental reliance list. And it 6 lists the reports of Wiley, Webb and 7 Dyar. 8 Have you reviewed those? 9 A. Yes. 10 Q. In addition, there are some 11 invoices that follow the supplemental 12 reliance list. And are those all the 13 invoices that you have produced in this 14 case? 15 A. So far. I still have other 16 invoices to produce. 17 Q. In addition to the hours 18 depicted in these two invoices, how many 19 hours have you spent working on this 20 case? 21 A. I have not added up February 22 and March to date. 23 Q. Can you give me an 24 approximation?</p>	<p style="text-align: right;">Page 353</p> <p>1 MR. CHACHKES: Let's go off 2 the record. And then we might 3 have a little bit of redirect. 4 Maybe not. Okay. Give us a few 5 minutes. 6 THE VIDEOGRAPHER: The time 7 is 7:26 p.m. Off the record. 8 (Short break.) 9 THE VIDEOGRAPHER: We are 10 back on the record. The time is 11 7:40 p.m. 12 - - - 13 EXAMINATION 14 - - - 15 BY MR. CHACHKES: 16 Q. Professor Poulton, you were 17 asked -- 18 THE VIDEOGRAPHER: 19 Counselor, your microphone is not 20 on. 21 BY MR. CHACHKES: 22 Q. Professor Poulton, you were 23 asked questions about working with 24 industry for mineral exploration mine</p>

<p style="text-align: right;">Page 354</p> <p>1 design, through that process. Do you 2 remember that? 3 A. I do. 4 Q. What about otherwise, you 5 were asked very specifically about 6 directly with industry, I think 7 consulting directly for them. 8 What about otherwise? 9 A. So rather than going outside 10 the university and doing consulting, we 11 actually brought the consulting projects 12 into our classes, and into our student 13 projects. So that way the students would 14 learn and the students would benefit and 15 it gave the faculty the opportunity to 16 work together on a wide range of 17 different kinds of projects. 18 So as one example, we have a 19 field methods in geophysical exploration 20 and we would have a company basically be 21 the client for that class and we would 22 design geophysical surveys with the 23 class. We would go out and collect the 24 data. Process the data, produce the</p>	<p style="text-align: right;">Page 356</p> <p>1 experience, what's your opinion on what 2 happened in practice for the mines that 3 J&J sourced its cosmetic talc from? 4 MS. O'DELL: Object to the 5 form. 6 THE WITNESS: So there -- 7 there are two things you do. One 8 is you leave a buffer zone when 9 you have to be careful about 10 inclusion of undesirable rocks in 11 your process stream. 12 The other thing with 13 underground mining is you need to 14 leave some supporting rocks 15 because you're -- you're mining 16 out holes and you don't have 17 support for the rock over your 18 head. 19 So quite frequently you will 20 leave the undesirable rock behind 21 as your support. 22 BY MR. CHACHKES: 23 Q. Okay. You recall the charts 24 in the Cook and Krekeler reports that</p>
<p style="text-align: right;">Page 355</p> <p>1 reports, work with the company, 2 geologists, and geophysicists on overall 3 interpretation, and choose bore hole 4 selections where appropriate. That is 5 one example. 6 Another example is we would 7 do rock mechanics testing for mines. And 8 we would have those samples in our 9 geomechanics laboratory. So the students 10 had the opportunity to work with real 11 samples and collect the data, write the 12 reports, and work alongside the company 13 on what those test results meant and were 14 being used for. Those are two examples. 15 Q. You talked a little bit 16 about the possibility that material from 17 outside the talc body might be mined. Do 18 you recall that? 19 MS. O'DELL: Object to the 20 form. 21 THE WITNESS: I do. 22 BY MR. CHACHKES: 23 Q. Okay. Based on your review 24 of the documents in this case and your</p>	<p style="text-align: right;">Page 357</p> <p>1 they list documents to support their 2 opinions about testing results? 3 A. Yes. 4 MS. O'DELL: Object to the 5 form. 6 BY MR. CHACHKES: 7 Q. If you in your rebuttal did 8 not mention a document in one of those 9 charts, to what degree does that mean you 10 agreed with their take on the document? 11 MS. O'DELL: Object to the 12 form. 13 THE WITNESS: It does not 14 mean that I agreed with their 15 conclusions. It -- it simply 16 means that that wasn't one of the 17 documents I selected to examine. 18 BY MR. CHACHKES: 19 Q. And you were asked a lot of 20 questions about general principles in 21 mining. To what degree are there any -- 22 are any of those general principles 23 applicable to a specific mine? 24 MS. O'DELL: Object to the</p>

<p style="text-align: right;">Page 358</p> <p>1 form.</p> <p>2 THE WITNESS: So you -- you</p> <p>3 take those general principles and</p> <p>4 then you look at the context of</p> <p>5 your specific mining situation and</p> <p>6 determine how you modify those</p> <p>7 general principles. So every mine</p> <p>8 has potentially unique situations</p> <p>9 that you have to take into</p> <p>10 account.</p> <p>11 BY MR. CHACHKES:</p> <p>12 Q. What is your understanding</p> <p>13 of the conclusion of Pooley's testing in</p> <p>14 Italy?</p> <p>15 A. So my understanding of</p> <p>16 Pooley's testimony, and it's a direct</p> <p>17 quote from his report, "No amphibole or</p> <p>18 chrysotile material was detected in any</p> <p>19 of the numerous powders examined."</p> <p>20 MS. O'DELL: Where -- excuse</p> <p>21 me. Doctor, if you don't mind, if</p> <p>22 you're quoting that, would you</p> <p>23 just tell me what page you are on?</p> <p>24 THE WITNESS: 7 of my</p>	<p style="text-align: right;">Page 360</p> <p>1 A. So I was reading a quote</p> <p>2 from Pooley's report.</p> <p>3 Q. What page of your report?</p> <p>4 A. Of my report is Page 7.</p> <p>5 Q. Page 7. And just so I</p> <p>6 can -- can follow. Did you read a</p> <p>7 portion of the quote that appears at the</p> <p>8 top of Page 7?</p> <p>9 A. Yes.</p> <p>10 Q. If you'll go to Exhibit 8,</p> <p>11 which is the Pooley report. Exhibit 8.</p> <p>12 Are you there?</p> <p>13 A. I have Exhibit 8.</p> <p>14 Q. And if you'll turn to the</p> <p>15 last page of the exhibit. When you --</p> <p>16 the quote in your report actually leaves</p> <p>17 out some sentences on this page.</p> <p>18 You -- you state in your</p> <p>19 report, "Particles formed from the</p> <p>20 amphibole mineral found at the mine were</p> <p>21 hardly fibers of character, and the</p> <p>22 majority of the tremolite breaking to</p> <p>23 give compact particles."</p> <p>24 And then you don't quote the</p>
<p style="text-align: right;">Page 359</p> <p>1 report.</p> <p>2 MS. O'DELL: What's the page</p> <p>3 on the Pooley document?</p> <p>4 THE WITNESS: I have the</p> <p>5 quote in the J&J number, I don't</p> <p>6 have the specific page number.</p> <p>7 MR. CHACHKES: Okay. So no</p> <p>8 further questions.</p> <p>9 MS. O'DELL: Okay. I have a</p> <p>10 few questions.</p> <p>11 - - -</p> <p>12 EXAMINATION</p> <p>13 - - -</p> <p>14 BY MS. O'DELL:</p> <p>15 Q. You mentioned the Pooley</p> <p>16 report. What page were you referring to?</p> <p>17 A. We could open up the Pooley</p> <p>18 report and find the exact page number.</p> <p>19 Q. No. You're -- you</p> <p>20 mentioned -- you quoted from your report,</p> <p>21 correct?</p> <p>22 A. Yes.</p> <p>23 Q. And what -- what was the</p> <p>24 specific quote you were reading?</p>	<p style="text-align: right;">Page 361</p> <p>1 next sentence: "Those" -- "those fibers</p> <p>2 formed were short and had a very large</p> <p>3 diameter with" -- "when compared to</p> <p>4 commercial varieties of asbestos."</p> <p>5 Did I read that directly?</p> <p>6 MR. FROST: Objection.</p> <p>7 THE WITNESS: I haven't</p> <p>8 found where you are exactly.</p> <p>9 BY MS. O'DELL:</p> <p>10 Q. The last page of the report.</p> <p>11 Are you there?</p> <p>12 A. I see the last page.</p> <p>13 Q. And it's Bates Number 475?</p> <p>14 A. 475.</p> <p>15 Q. And you quoted in your</p> <p>16 report from the second paragraph at the</p> <p>17 end, correct?</p> <p>18 A. Yes.</p> <p>19 Q. And Dr. Pooley noted that</p> <p>20 there were fibers within the talc,</p> <p>21 correct?</p> <p>22 MR. LOCKE: Objection to</p> <p>23 form.</p> <p>24 THE WITNESS: So those</p>

<p style="text-align: right;">Page 362</p> <p>1 fibers are not asbestos. They are 2 not identified as asbestos. 3 BY MS. O'DELL: 4 Q. Then he goes on to say, "The 5 Italian talc" -- this is the next 6 paragraph. 7 "The Italian talc contains 8 observable quantities of chlorite and 9 carbonate minerals and could contain any 10 one of the following minerals in minor 11 amounts," and he includes in that 12 tremolite, correct? 13 A. And tremolite is not 14 asbestos. 15 Q. It can be asbestos, correct? 16 MR. FROST: Objection to 17 form. 18 MR. CHACHKES: Objection. 19 THE WITNESS: That's not 20 what's stated here. 21 BY MS. O'DELL: 22 Q. Tremolite can be asbestiform 23 or non-asbestiform, correct? 24 Is that a true statement?</p>	<p style="text-align: right;">Page 364</p> <p>1 spent for -- 2 MS. O'DELL: I had 3 14 minutes left, Tom. 4 MR. LOCKE: Yeah, I think 5 based on the way you did timing 6 for the prior depositions, I think 7 we're already over. 8 MS. O'DELL: No, I don't -- 9 I -- I disagree with that. 10 BY MS. O'DELL: 11 Q. Ma'am, do you remember my 12 question? 13 A. So tremolite asbestos is not 14 the same as tremolite. 15 Q. Tremolite can occur as a 16 non-asbestiform mineral and also an 17 asbestiform mineral, true? 18 A. So tremolite asbestos is not 19 tremolite. 20 MR. CHACHKES: Okay. So by 21 the way, this -- let's go off the 22 record just for a moment. Because 23 it's my understanding that you -- 24 y'all in your depositions limited</p>
<p style="text-align: right;">Page 363</p> <p>1 A. Tremolite asbestos is the 2 asbestos mineral. 3 Q. That's not what I asked you. 4 I asked you if tremolite can occur in 5 non-asbestiform and an asbestiform habit, 6 true? 7 A. So -- so -- 8 Q. Is that true? 9 A. -- tremolite -- 10 Q. Is that true, ma'am? 11 A. -- can be -- 12 MR. CHACHKES: Please don't 13 badger the witness. Let her 14 answer. 15 MS. O'DELL: She needs to 16 answer my question. I just asked 17 her a simple question that's 18 noncontroversial -- 19 MR. CHACHKES: So let her -- 20 let her answer, please. 21 MR. LOCKE: Just for the 22 record, we're over the time -- 23 MR. CHACHKES: Yeah. 24 MR. LOCKE: -- that was</p>	<p style="text-align: right;">Page 365</p> <p>1 our redirect -- our recross to the 2 time of redirect without regard to 3 the amount of time that was 4 leftover from the -- 5 MS. O'DELL: That -- that's 6 not -- 7 MR. LOCKE: True. 8 MR. CHACHKES: That is true. 9 MS. O'DELL: Jack, you know 10 that's not true. That is 11 absolutely not true. That we 12 allowed the time that remained was 13 added to your redirect, any 14 additional -- 15 MR. CHACHKES: That's why I 16 wanted to go off the record. Let 17 me just clarify -- 18 THE VIDEOGRAPHER: Yeah, 19 we're still on the record, so -- 20 MR. CHACHKES: Yeah. 21 THE VIDEOGRAPHER: You want 22 to go off? 23 MR. CHACHKES: Yeah, let's 24 go off. Just to make sure because</p>

<p style="text-align: right;">Page 366</p> <p>1 this is an important point, right?</p> <p>2 MS. O'DELL: We're off the</p> <p>3 record?</p> <p>4 THE VIDEOGRAPHER: The time</p> <p>5 is 7:50 p.m. We're off the</p> <p>6 record.</p> <p>7 (Brief pause.)</p> <p>8 THE VIDEOGRAPHER: We are</p> <p>9 back on the record. The time is</p> <p>10 7:53 p.m.</p> <p>11 BY MS. O'DELL:</p> <p>12 Q. You talked about with</p> <p>13 counsel for J&J classes. I think you</p> <p>14 mentioned field methods was one class</p> <p>15 where there was some engagement with</p> <p>16 industry and students worked on projects</p> <p>17 that involved geophysical exploration,</p> <p>18 surveys, et cetera.</p> <p>19 Do you call -- recall that?</p> <p>20 A. That was one example.</p> <p>21 Q. And did any of those</p> <p>22 projects involve talc mines?</p> <p>23 A. No.</p> <p>24 Q. You also mentioned a class</p>	<p style="text-align: right;">Page 368</p> <p>1 that was in the binders that were</p> <p>2 prepared for you. It's a printout from a</p> <p>3 website that you referenced in your</p> <p>4 reliance materials. I think it's called</p> <p>5 OneMine.org?</p> <p>6 A. Yes.</p> <p>7 Q. And is that the web page</p> <p>8 which you relied on in reaching your</p> <p>9 opinions in this case?</p> <p>10 MR. CHACHKES: Objection.</p> <p>11 THE WITNESS: I used this</p> <p>12 website to search for documents.</p> <p>13 BY MS. O'DELL:</p> <p>14 Q. Is that the page that --</p> <p>15 that -- does that page reflect data that</p> <p>16 you reviewed and relied on in reaching</p> <p>17 your opinions?</p> <p>18 MR. CHACHKES: Objection.</p> <p>19 THE WITNESS: This page is a</p> <p>20 search box.</p> <p>21 BY MS. O'DELL:</p> <p>22 Q. What searches did you</p> <p>23 perform using OneMine.org?</p> <p>24 A. So I searched for talc. I</p>
<p style="text-align: right;">Page 367</p> <p>1 involving rock mechanic testing in a lab.</p> <p>2 A. Yes.</p> <p>3 Q. Did that type of testing</p> <p>4 that was done in that lab involve TEM?</p> <p>5 A. TEM is not a rock mechanics</p> <p>6 instrument.</p> <p>7 Q. I would -- what is rock</p> <p>8 mechanics, just to make sure I</p> <p>9 understand?</p> <p>10 A. Rock mechanics is the</p> <p>11 engineering strength of rocks.</p> <p>12 Q. So tensile strength?</p> <p>13 A. Compressive strength,</p> <p>14 tensile strength.</p> <p>15 Q. Any evaluation by</p> <p>16 microscopy?</p> <p>17 A. I don't believe so for</p> <p>18 undergraduate testing.</p> <p>19 (Document marked for</p> <p>20 identification as Exhibit</p> <p>21 Poulton-34.)</p> <p>22 BY MS. O'DELL:</p> <p>23 Q. Let me show you what I've</p> <p>24 marked as Exhibit 34. It's something</p>	<p style="text-align: right;">Page 369</p> <p>1 searched for sampling. I believe I</p> <p>2 searched for asbestos.</p> <p>3 Q. Any other searches?</p> <p>4 A. Possibly. I don't remember.</p> <p>5 Q. You also testified</p> <p>6 regarding -- I think you used the -- the</p> <p>7 term "buffer."</p> <p>8 You were asked the question:</p> <p>9 "Based on your review of the documents in</p> <p>10 this case and your experience, what's</p> <p>11 your opinion on what happened in practice</p> <p>12 for the mines that sourced -- that J&J</p> <p>13 sourced its cosmetic talc from?"</p> <p>14 Do you remember that</p> <p>15 question?</p> <p>16 A. Is that a question that Alex</p> <p>17 asked?</p> <p>18 Q. Correct.</p> <p>19 A. Okay.</p> <p>20 Q. And -- and you testified</p> <p>21 that -- about a buffer zone that was left</p> <p>22 in the mining process used to source J&J</p> <p>23 talc.</p> <p>24 What data are you relying on</p>

<p>Page 370</p> <p>1 regarding the use of a buffer zone?</p> <p>2 A. So can you read the exact</p> <p>3 question?</p> <p>4 Q. "Based on your review of the</p> <p>5 documents in this case and your</p> <p>6 experience, what's your opinion on what</p> <p>7 happened in practice for the mines that</p> <p>8 J&J sourced its cosmetic talc from?"</p> <p>9 And I want to know -- you</p> <p>10 testified to a buffer zone, and I want to</p> <p>11 know what you're relying on to state that</p> <p>12 there was a buffer zone used.</p> <p>13 A. So I believe in reading</p> <p>14 through the documents, they talked about</p> <p>15 staying away from the black wall and</p> <p>16 using that as the boundary. And they</p> <p>17 also talked about leaving rock behind for</p> <p>18 support.</p> <p>19 Q. And that was in underground</p> <p>20 mines?</p> <p>21 A. Underground.</p> <p>22 MS. O'DELL: Okay. I have</p> <p>23 nothing further. Thank you.</p> <p>24 THE VIDEOGRAPHER: This</p> <p>Page 371</p>	<p>Page 372</p> <p>1</p> <p>2 CERTIFICATE</p> <p>3</p> <p>4</p> <p>5 I HEREBY CERTIFY that the</p> <p>6 witness was duly sworn by me and that the</p> <p>7 deposition is a true record of the</p> <p>8 testimony given by the witness.</p> <p>9</p> <p>10 It was requested before</p> <p>11 completion of the deposition that the</p> <p>12 witness, MARY POULTON, Ph.D., have the</p> <p>13 opportunity to read and sign the</p> <p>14 deposition transcript.</p> <p>15</p> <p>16</p> <p>17</p> <p>18</p> <p>19 MICHELLE L. GRAY,</p> <p>20 A Registered Professional</p> <p>21 Reporter, Certified Shorthand</p> <p>22 Reporter, Certified Realtime</p> <p>23 Reporter and Notary Public</p> <p>24 Dated: March 19, 2019</p> <p>17</p> <p>18 (The foregoing certification</p> <p>19 of this transcript does not apply to any</p> <p>20 reproduction of the same by any means,</p> <p>21 unless under the direct control and/or</p> <p>22 supervision of the certifying reporter.)</p> <p>23</p> <p>24</p>
<p>1 marks the end of today's</p> <p>2 deposition. The time is 7:58 p.m.</p> <p>3 (Excused.)</p> <p>4 (Deposition concluded at</p> <p>5 approximately 7:58 p.m.)</p> <p>6</p> <p>7</p> <p>8</p> <p>9</p> <p>10</p> <p>11</p> <p>12</p> <p>13</p> <p>14</p> <p>15</p> <p>16</p> <p>17</p> <p>18</p> <p>19</p> <p>20</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p>	<p>Page 373</p> <p>1 INSTRUCTIONS TO WITNESS</p> <p>2</p> <p>3 Please read your deposition</p> <p>4 over carefully and make any necessary</p> <p>5 corrections. You should state the reason</p> <p>6 in the appropriate space on the errata</p> <p>7 sheet for any corrections that are made.</p> <p>8 After doing so, please sign</p> <p>9 the errata sheet and date it.</p> <p>10 You are signing same subject</p> <p>11 to the changes you have noted on the</p> <p>12 errata sheet, which will be attached to</p> <p>13 your deposition.</p> <p>14 It is imperative that you</p> <p>15 return the original errata sheet to the</p> <p>16 deposing attorney within thirty (30) days</p> <p>17 of receipt of the deposition transcript</p> <p>18 by you. If you fail to do so, the</p> <p>19 deposition transcript may be deemed to be</p> <p>20 accurate and may be used in court.</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p>

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2 ACKNOWLEDGMENT OF DEPONENT

3

4 I, _____, do

5 hereby certify that I have read the

6 foregoing pages, 1 - 376, and that the

7 same is a correct transcription of the

8 answers given by me to the questions

9 therein propounded, except for the

10 corrections or changes in form or

11 substance, if any, noted in the attached

12 Errata Sheet.

13

14

15 _____

16 MARY POULTON, Ph.D. DATE

17

18

19 Subscribed and sworn

20 to before me this

21 _____ day of _____, 20____.

22 My commission expires: _____

23 _____

24 Notary Public